

**Title:****The Forest Remembers: Biodiversity, Tradition and Field Realities in Jharkhand's Tribal Uplands****Author:**

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**Abstract**

This field report documents biocultural biodiversity from the upland landscapes of Dumka and Godda (Santhal Pargana, Jharkhand, India). Based on MSc Zoology fieldwork (June–August 2025), I recorded qualitative observations of livestock–flora coexistence, monsoon streams adjoining cultural remnants, and ritual agroforestry centred on *Shorea robusta* (Sal). Non-invasive methods, live field notes, and community conversations were used. While not an exhaustive inventory, these observations foreground biocultural conservation priorities in semi-wild landscapes that remain under-represented in indexed literature.

**Methods**

- Period & effort: 10 transect walks (1.5–3.0 km each), ~28 field hours across June–August 2025; morning (06:00–10:00) and evening (16:00–19:00) sessions.
- Approach: Non-invasive visual encounter surveys, landscape photography, in-situ note-taking (tea stalls/field edges), informal interviews with elders and herders.
- Recording: Weather, habitat, indicative taxa, human use. No capture/handling; no specimens collected.
- Data scope: Qualitative/indicative; intended to inform future systematic sampling.
- Ethics & consent: Sacred sites anonymized; photos taken with verbal consent; community knowledge acknowledged.

**Results – Livestock–Flora (tighten)**

Rotational, small-herd grazing in village pastures allowed regrowth of herbaceous cover; butterflies/orthopterans were common alongside cattle. At forest edges, *Shorea* groves persisted with browse-tolerant herbs—suggesting cohabitation rather than exclusion under traditional use.

**Results – Seasonal Streams**

A monsoon-fed stream near Sundar Pahari, bordered by a broken stone pillar, indicated historic human–forest routes. Post-rain amphibian activity included calling of *Duttaphrynus melanostictus*, aligning species behaviour with seasonal hydrology and cultural memory.

**Results – Ritual Agroforestry**

Pre-sowing gatherings at the Manjhi than under Sal mark an ecological calendar: offerings (khorma, batasa, jalebi) precede rain-dependent sowing of desi rice/maize. The ritual functions as community-level timing, cohesion, and stewardship.

**Discussion (hedged, safe)**

Findings support the view that Santhal uplands are working biocultural landscapes where livelihood and biodiversity co-persist. Rather than casting these areas as “degraded,” evidence here suggests functional

coexistence shaped by custom, seasonality, and restraint. This aligns with widely discussed frames of biocultural conservation and indigenous stewardship; however, systematic, multi-season sampling is needed to quantify patterns.

**Conclusion**

Jharkhand’s uplands operate as bio-cultural archives: pastures as corridors, streams as seasonal nodes, and rituals as ecological calendars. Conservation practice should integrate tribal agroforestry and customary timings into local biodiversity planning, complementing protected-area approaches.

**NEW: Limitations**

Observations are qualitative, site-limited (Kathikund, Ramgarh, Sundarpahari) and monsoon-season bound; no species abundance/occupancy estimates were attempted.

**NEW: Ethics & Permissions**

Non-invasive observation only; no disturbance or collection. Sacred locations are generalized to protect community privacy. Community members provided verbal consent for note-taking/photographs

**Table 1. Site & Effort Summary**

| Site (District)      | Habitat           | Sessions | Transect length (km) | Effort (hrs) |
|----------------------|-------------------|----------|----------------------|--------------|
| Kathikund (Dumka)    | Sal upland & edge | 4        | 1.5–2.0              | 10           |
| Ramgarh (Dumka)      | Village pasture   | 3        | 1.0–1.8              | 8            |
| Sundarpahari (Godda) | Riparian stream   | 3        | 1.2–3.0              | 10           |

**Table 2. Observation Log (sample schema)**

| Date       | Time  | Site         | Weather    | Habitat  | Notable taxa/notes                       |
|------------|-------|--------------|------------|----------|------------------------------------------|
| 2025-07-09 | 06:20 | Kathikund    | Light rain | Sal edge | Cattle grazing; butterflies are active   |
| 2025-07-15 | 18:05 | Sundarpahari | Overcast   | Stream   | D. melanostictus calls; moths near ruins |



*Fig. 1 Forested upland, Kathikund (Shorea groves; monsoon 2025).*



*Fig. 2 Community pasture with cattle; herbaceous layer intact.*



**Fig. 3** Monsoon stream & broken pillar, Sundarpahari (riparian herbs).

Figure 4. In-situ note-taking during biodiversity survey at Dumka uplands, showing field documentation process."



## References

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