

Study evaluating the suitability of *Paubrasilia echinata* bow blanks for bow making

PROJECT STATUS

Validation & pretest

July / August 2026

BRIEFING

DECISION-RELEVANT QUESTION

How much of the theoretical timber yield is actually suitable for bow making?

Volumetric models estimate the number of blanks that could theoretically be obtained. They do not capture material characteristics, their severity and location, intended use, or quality segment.

The study adds structured professional assessments to this evidence base.

METHODOLOGICAL APPROACH

1

PROFESSIONAL CRITERIA

More than twenty anatomical, structural, visual and physical material characteristics.

2

SUITABILITY CLASSIFICATION

Assessment by severity, location, intended use and quality segment - including "unable to assess".

3

COMPARISON & UNCERTAINTY

Multilingual expert survey, analysis by professional group and region, plus aggregated and anonymised analysis.

POTENTIAL CONTRIBUTION

Practical suitability as a complement to volumetric conversion models

The study examines whether an empirically grounded suitability factor or range can be derived, comparing theoretical yield with the share of material that is actually usable under defined professional criteria.

- **Conversion models:** Complement volume-to-bow models with empirical data on practical usability.
- **Technical classification:** Establish an empirical basis for transparent criteria for roundwood, sawn wood and bow blanks.
- **Variability:** Make the spread and uncertainty in actual usable yield visible.
- **Documentation:** Provide guidance for standardised material descriptions in stock and traceability systems.

Conservation focus and limitations

Protecting wild populations is the starting point of the study. The research does not determine the legality of individual materials or transactions and does not diminish concerns about illegal origin or illegal trade.

The study does not determine population trends, sustainable harvest levels, origin or acquisition date of individual materials. It replaces neither a non-detriment finding (NDF) nor an assessment of legal acquisition and does not prejudice any regulatory decision.

Next steps & outputs

Before international fieldwork, terminology, translations, survey routing, usability and the analytical framework are tested in the pretest.

1

Validate methodology

2

Conduct international fieldwork

3

Analyse suitability patterns and uncertainties

4

Deliver results