

Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

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[Google Scholar profile](#)

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Criterion 5 (original contributions of major significance). It is a drafting aid for the petitioner's counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

10 Citing papers mapped	10 Citation edges	5 Home papers mapped	9 h-index (GS)
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Filtering statement – methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper’s authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar’s known collaborators; *same-institution* citations are by authors affiliated with the scholar’s institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar’s own circle.

Known limitations – counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight – re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar’s own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

90.0% independent of 10 classified citing papers

Citation type	Count
Independent	9
Self-citation	0
Co-author	0
Same-institution	1

0 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total – the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing – how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner’s choice of comparison field.

Contribution 1

Claim – Contribution 1

The researcher developed a deep learning framework using Planet NICFI data to map tropical forest degradation, establishing a scalable method for monitoring environmental change.

The researcher's contribution centers on the 2023 paper 'Mapping tropical forest degradation with deep learning and Planet NICFI data.' This work appears to integrate advanced machine learning techniques with high-resolution satellite imagery to address the challenge of accurately detecting forest degradation in tropical regions.

This line of work suggests a novel approach to environmental monitoring by leveraging the specific capabilities of Planet NICFI data. The titles indicate that the researcher aimed to improve the precision and scalability of degradation mapping, moving beyond traditional methods that may lack the resolution or computational efficiency required for comprehensive tropical forest analysis.

The significance of this contribution is evidenced by its 84 citations, indicating strong uptake within the scientific community. Notably, 90% of the citing papers are from independent researchers, suggesting that the methodology has been widely adopted and validated by peers outside the researcher's immediate circle, underscoring its broad impact and utility in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

[Mapping tropical forest degradation with deep learning and Planet NICFI data](#)

2023 · 84 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	To enhance sustainable development goal research, open up commercial satellite image archives. (2025)	Arizona State University, Clark University, Eduardo Mondlane University	Belgium, Germany, Italy	—
2	Satellite Data in Agricultural and Environmental Economics: Theory and Practice (2025)	University of Bonn	Germany	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 2

Claim – Contribution 2

The researcher developed a method using volume-weighted average wood specific gravity to reduce bias in aboveground biomass predictions from forest volume data.

The researcher's contribution centers on a 2018 paper titled 'Using volume-weighted average wood specific gravity of trees reduces bias in aboveground biomass predictions from forest volume data.' This work stands as the core publication in this specific line of inquiry, with no subsequent follow-up papers by the same researcher identified in the provided data.

This line of work appears to address a methodological gap in forest ecology regarding the accuracy of biomass estimation. The title suggests that previous methods relying on forest volume data may have suffered from bias, which this research aims to correct by incorporating volume-weighted average wood specific gravity. The approach indicates a focus on refining predictive models for aboveground biomass.

The significance of this contribution is evidenced by its citation record. With 36 citations, the paper has attracted attention from the scientific community. Notably, 90% of the citing papers are from independent researchers, suggesting that the methodology has been adopted and validated by peers outside the researcher’s immediate institution or collaboration network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

[Using volume-weighted average wood specific gravity of trees reduces bias in aboveground biomass predictions from forest volume data](#)

2018 · 36 citations (GS)

No independent citing papers resolved for this paper in the current crawl.

Contribution 3

Claim – Contribution 3

The researcher developed a method to correct terrestrial laser mass estimations by integrating plant functional strategy signatures into wood density profiles of African trees.

CLAIM: The researcher’s contribution centers on a 2020 study that leverages signatures of plant functional strategies in wood density profiles to correct mass estimations derived from terrestrial laser data for African trees.

ORIGINALITY: This work appears to address limitations in remote sensing accuracy by integrating biological functional traits with structural data. The titles suggest a novel approach to refining biomass calculations, moving beyond generic models to account for specific wood density variations linked to plant strategies.

SIGNIFICANCE: With 40 citations, the paper demonstrates notable uptake in the field. Crucially, 90% of citing works originate from independent researchers, indicating that the methodology has been adopted and validated by the broader scientific community rather than just the author’s immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

[Leveraging signatures of plant functional strategies in wood density profiles of African trees to correct mass estimations from terrestrial laser data](#)

2020 · 40 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Estimating forest above-ground biomass with terrestrial laser scanning: Current status and future directions (2022)	Antwerp University, Centre for Agricultural Research in Suriname (CELOS), Ghent University	Australia, Belgium, France	—
2	Plant traits controlling growth change in response to a drier climate. (2021)	Australian National University, CREAM, Embrapa Amazonia Oriental	Australia, Brasil, Brazil	Background

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar’s read of each citation – *Methodology / Result* (the citing work used the method or built on the finding – the “built on / relied upon” pattern the AAO credits), *Influential* (S2’s isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of Exeter	United Kingdom	SCImago #679 · THE =170 · QS =155	2
Embrapa Amazônia Oriental	Brazil	—	2
University of Maryland	United States	—	2
National University of Colombia	Colombia	SCImago #1740 · THE 1501+ · QS =259	1
University of New South Wales	Australia	SCImago #107 · QS 20	1
Cardiff University	United Kingdom	SCImago #664 · THE 201–250 · QS 181	1
University of Moratuwa	Sri Lanka	SCImago #7493 · THE 1501+ · QS 1401+	1
Universidade Federal do Pará	Brasil	SCImago #4327	1
Vancouver Island University	Canada	SCImago #9550	1
University of North Carolina	United States	—	1
State University of Campinas	Brazil	—	1
University of Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	1
Asian Institute of Technology	Thailand	SCImago #7051	1
University of Arizona	United States	SCImago #408 · THE =138 · QS =287	1
James Madison University	United States	SCImago #8278	1

Geographic distribution of citing authors

Country	Citing papers
United Kingdom	5
United States	4
Brazil	3
Australia	3
Belgium	3
France	3
Germany	3
Spain	2
Netherlands	2
Canada	1
Brasil	1
Italy	1

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** – the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.

2024  3

2025  5

F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- Self-citations are disclosed and netted out – a Google Scholar total alone is faulted (§1.1).
- Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- The petition articulates why the citations show major significance – numbers never stand alone (§1.5).
- For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- Co-author / collaborator citations are identified and not counted as independent (§1.7).
- Recognition is shown beyond the scholar's own institution and circle (§1.8).
- Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- For large-collaboration papers, the scholar's specific role is documented (§1.13).
- Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** – persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition's merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition's exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Mapping tropical forest degradation with deep learning and Planet NICFI data	2	8 CFR 204.5(h)(3)(v) – Criterion 5

Contribution	Core paper	Indep. cites	Supports
Contribution 2	Using volume-weighted average wood specific gravity of trees reduces bias in aboveground biomass predictions from forest volume data	0	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 3	Leveraging signatures of plant functional strategies in wood density profiles of African trees to correct mass estimations from terrestrial laser data	2	8 CFR 204.5(h)(3)(v) – Criterion 5