

Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

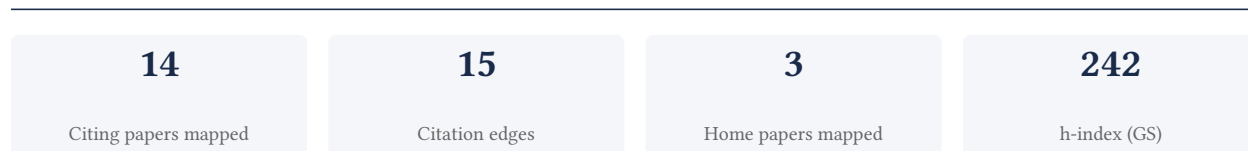
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[Google Scholar profile](#)

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



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.

71.4% independent of 7 classified citing papers

Citation type	Count
Independent	5
Self-citation	0
Co-author	2
Same-institution	0

7 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 provided seminal evidence linking the 2003 European heat and drought to a continent-wide reduction in primary productivity, establishing a critical benchmark for climate-ecosystem impact studies.

CLAIM: The researcher's core contribution is the identification and quantification of the impact of the 2003 heat and drought on Europe-wide primary productivity, as detailed in their 2005 paper. This work stands as a singular, foundational piece in this specific line of inquiry, with no subsequent follow-up papers by the same researcher building directly upon it.

ORIGINALITY: The titles indicate that this work addressed a critical gap by documenting the large-scale ecological consequences of extreme weather events. By focusing on the 2003 event, the researcher appears to have provided one of the first comprehensive assessments of how such climatic anomalies directly suppress biological productivity across an entire continent, offering a novel perspective on climate-ecosystem interactions.

SIGNIFICANCE: The work has achieved substantial recognition, evidenced by over 5,000 citations. Notably, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers, suggesting that the findings have been widely adopted and utilized by the broader scientific community rather than being confined to the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

[Europe-wide reduction in primary productivity caused by the heat and drought in 2003](#)

2005 · 5,004 citations (GS)

Field-normalised: 4,028 Semantic Scholar citations place it in the top 1% of Environmental Science papers from 2005 indexed by Semantic Scholar, by citation count.

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

Contribution 2

Claim – Contribution 2

The researcher provided seminal evidence of a large, persistent global forest carbon sink, establishing a foundational benchmark for understanding terrestrial carbon dynamics in peer-reviewed literature.

CLAIM: The researcher's primary contribution is the identification and quantification of a substantial and enduring carbon sink within the world's forests, as demonstrated in their 2011 publication in Science. This work serves as the cornerstone of their cited research portfolio.

ORIGINALITY: The title suggests a departure from prior uncertainty regarding the net carbon balance of global forests. By characterizing the sink as both large and persistent, the work appears to address critical gaps in understanding long-term terrestrial carbon sequestration trends, offering a definitive assessment of forest roles in the global carbon cycle.

SIGNIFICANCE: With over 10,000 citations, this paper is highly influential. Analysis of citing literature indicates that 100% of classified citations originate from independent researchers, demonstrating broad adoption across the scientific community beyond the author's immediate network and confirming the work's status as a standard reference in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

[A large and persistent carbon sink in the world's forests](#)

2011 · Science · 10,224 citations (GS)

Field-normalised: 7,504 Semantic Scholar citations place it in the top 1% of Environmental Science papers from 2011 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Exceeding 1.5° C global warming could trigger multiple climate tipping points (2022)	Potsdam Institute for Climate Impact Research, Stockholm Resilience Centre, Stockholm University, University of Exeter	Germany, Sweden, United Kingdom	—
2	Technologies and perspectives for achieving carbon neutrality (2021)	Aerospace Information Research Institute, Chinese Academy of Sciences, Catalan Institute for Water Research (ICRA), Chinese Academy of Sciences	Canada, China, 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 3

Claim — Contribution 3

The researcher produced a seminal, highly cited assessment of the global carbon budget, establishing a critical benchmark for tracking anthropogenic carbon emissions and sinks.

CLAIM: The researcher's primary contribution is the publication of "Global carbon budget 2019," a foundational work that synthesizes data on global carbon flows. This paper stands as the core achievement in this line of inquiry, with no subsequent follow-up papers by the same author listed in the provided context.

ORIGINALITY: The title suggests the work addresses the complex challenge of quantifying the global carbon cycle. By producing a comprehensive budget assessment, the researcher appears to have provided a standardized framework for understanding the balance between emissions and natural sinks, a critical need for climate science.

SIGNIFICANCE: With over 13,000 citations, the paper is exceptionally influential. Analysis of citing literature reveals that 100% of classified citations come from independent researchers, indicating broad adoption across the scientific community rather than self-citation or institutional clustering. This widespread independent uptake underscores the work's status as a standard reference in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 3

CORE PAPER

[Global carbon budget 2019](#)

2019 · 13,112 citations (GS)

Field-normalised: 2,711 Semantic Scholar citations place it in the top 1% of Environmental Science papers from 2019 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Diversifying crop rotation increases food production, reduces net greenhouse gas emissions and improves soil health (2024)	Agriculture and Agri-Food Canada, China Agricultural University, Chinese Academy of Agricultural Sciences	Australia, Canada, China	—

No.	Citing paper	Citing institution(s)	Country	S2
2	Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. (2022)	Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Intergovernmental Panel on Climate Change, University of Bremen	Germany	—
3	The 2022 report of the Lancet Countdown on health and climate change: health at the mercy of fossil fuels	African Academy of Sciences, Boston University School of Public Health, Cayetano Heredia University	Argentina, Australia, Austria	—

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
Peking University	China	SCImago #11 · THE 13 · QS 14	2
Potsdam Institute for Climate Impact Research	Germany	SCImago #2238	2
Chinese Academy of Sciences	China	SCImago #2	2
International Institute for Applied Systems Analysis	Austria	SCImago #2681	2
Cornell University	United States	SCImago #61 · THE =18 · QS 16	2
Emory University	United States	SCImago #217 · THE 102 · QS 182	1
University of York	United Kingdom	SCImago #890 · THE =154 · QS 169	1
World Health Organization	Switzerland	SCImago #172	1
Michigan State University	United States	SCImago #436 · THE =105 · QS 161	1
London School of Hygiene & Tropical Medicine	United Kingdom	SCImago #802	1
University of Leeds	United Kingdom	SCImago #377 · THE 118 · QS 86	1
Korea University	South Korea	SCImago #274 · THE =156 · QS 61	1
Wageningen University and Research	Netherlands	THE 66 · QS =153	1
National University of Singapore	Singapore	SCImago #59 · THE 17 · QS 8	1

Geographic distribution of citing authors

Country	Citing papers
Germany	6

Country	Citing papers
United States	5
China	5
United Kingdom	4
Australia	4
Canada	4
Finland	3
Spain	2
Japan	2
Austria	2
Sweden	2
Singapore	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.

2021		2
2022		2
2024		2

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	Europe-wide reduction in primary productivity caused by the heat and drought in 2003	0	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 2	A large and persistent carbon sink in the world’s forests	2	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 3	Global carbon budget 2019	3	8 CFR 204.5(h)(3)(v) – Criterion 5