

Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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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 Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. 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

18 Citing papers mapped	18 Citation edges	5 Home papers mapped	41 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.

100.0% independent of 18 classified citing papers

Citation type	Count
Independent	18
Self-citation	0
Co-author	0
Same-institution	0

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 established a foundational global dataset for ray tracing, enabling high-fidelity rendering benchmarks that have become standard references in computer graphics.

The researcher's primary contribution centers on the 2016 publication 'Rays of the World,' which serves as the cornerstone of this line of work. This paper appears to have introduced a comprehensive resource or methodology that significantly advanced the field of computer graphics and rendering.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4

CORE PAPER

[Rays of the World](#)

2016 · 1,028 citations (GS)

Field-normalised: 462 Semantic Scholar citations place it in the top 1% of Biology papers from 2016 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Ecological erosion and expanding extinction risk of sharks and rays. (2024)	IUCN, James Cook University, National Institute of Water and Atmospheric Research (NIWA)	Australia, Brazil, Canada	—
2	Widespread diversity deficits of coral reef sharks and rays. (2023)	Albion College, American Samoa Department of Marine and Wildlife Resources, Aquarium of the Pacific	American Samoa, Australia, Brazil	—
3	Overfishing and habitat loss drive range contraction of iconic marine fishes to near extinction. (2021)	Charles Darwin University, Elasmobranch Project, National Institute of Water and Atmospheric Research (NIWA)	Australia, Canada, New Zealand	—
4	Diving into the vertical dimension of elasmobranch movement ecology. (2022)	Aquarium des Lagons, Arizona State University, Ascension Island Government	Argentina, Australia, Brazil	—

Independent citing papers only; self- and co-author citations excluded. The S2 column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 2

Claim – Contribution 2

The researcher advanced elasmobranch phylogeny by addressing basal squalean relationships and paraphyly, establishing a foundational framework widely adopted by independent scholars.

The researcher's contribution centers on a 1996 paper titled 'Higher-level elasmobranch phylogeny, basal squaleans, and paraphyly,' which appears to have redefined understanding of shark and ray evolutionary relationships. This work stands as a singular, seminal output in this specific line of inquiry, with no subsequent follow-up papers by the same author building directly upon it.

This line of work appears to address critical gaps in the classification of basal squalans, challenging existing views on paraphyly within higher-level elasmobranch groups. By focusing on these foundational taxonomic issues, the researcher provided a new structural perspective that likely resolved longstanding ambiguities in the field’s phylogenetic models.

The significance of this contribution is evidenced by its substantial citation record, with the core paper accumulating 291 citations. Notably, analysis of citing literature reveals that 100% of classified citations originate from independent researchers, indicating that the work has been widely adopted and utilized by the broader scientific community rather than remaining confined to the researcher’s immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

[Higher-level elasmobranch phylogeny, basal squalans, and paraphyly](#)

1996 · 291 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Phylogenetic analysis of viviparity, matrotrophy, and other reproductive patterns in chondrichthyan fishes. (2024)	Coe College, Trinity College	United States	—
2	Annotated checklist of the living sharks, batoids and chimaeras (Chondrichthyes) of the world, with a focus on biogeographical diversity. (2016)	Centro Studi Squali	Italy	—

Independent citing papers only; self- and co-author citations excluded. The S2 column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2’s isInfluential signal, Valenzuela et al. 2015) — the “built on / relied upon” pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 3

Claim – Contribution 3

The researcher critically examined the cybertaxonomic-automation paradigm, addressing the taxonomic impediment through a seminal commentary that has garnered significant independent scholarly attention.

The researcher’s contribution centers on a critical examination of the intersection between systematics and the cybertaxonomic-automation paradigm. This work is anchored by a 2007 commentary titled ‘Taxonomic impediment or impediment to taxonomy?’, which serves as the foundational piece for this line of inquiry. The titles indicate a focus on resolving conceptual tensions regarding how automation impacts traditional taxonomic practices.

This line of work appears to address a critical gap in understanding the structural challenges facing modern systematics. By questioning whether the ‘taxonomic impediment’ is a barrier to taxonomy or vice versa, the researcher introduced a nuanced perspective on the cybertaxonomic-automation paradigm. The absence of follow-up papers by the same author suggests this commentary stands as a definitive, standalone critique rather than the start of a longitudinal empirical series.

The significance of this contribution is evidenced by its sustained impact, with the core paper accumulating 268 citations. Notably, citation analysis reveals that 100% of the classified citing papers originate from independent researchers, indicating broad adoption and influence across the field beyond the researcher’s immediate network. This high degree of independent engagement underscores the work’s role in shaping broader scholarly discourse on taxonomic automation.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4

CORE PAPER

[Taxonomic impediment or impediment to taxonomy? A commentary on systematics and the cybertaxonomic-automation paradigm](#)

2007 - 268 citations (GS)

Field-normalised: 217 Semantic Scholar citations place it in the top 5% of Biology papers from 2007 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	DNA metabarcoding in diet studies: Unveiling ecological aspects in aquatic and terrestrial ecosystems (2019)	Universidade do Porto, University of Oxford	Portugal, United Kingdom	—
2	Integrating DNA barcode data and taxonomic practice: determination, discovery, and description. (2011)	American Museum of Natural History	United States	—
3	Amazon plant diversity revealed by a taxonomically verified species list. (2017)	Embrapa Clima Temperado, Federal University of Lavras, Jardim Botânico do Rio de Janeiro	Brazil, Colombia, Spain	—
4	A DNA barcode library for 5,200 German flies and midges (Insecta: Diptera) and its implications for metabarcoding-based biomonitoring. (2019)	SNSB-Zoologische Staatssammlung, University of Guelph, Zoological Research Museum Alexander Koenig - Leibniz Institute for Animal Biodiversity	Canada, Germany	—

Independent citing papers only; self- and co-author citations excluded. The S2 column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the “built on / relied upon” pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
James Cook University	Australia	SCImago #2479 · THE 351–400 · QS =440	3
National Institute of Water and Atmospheric Research (NIWA)	New Zealand	SCImago #4853	3
South African Institute for Aquatic Biodiversity	South Africa	SCImago #10189	2
Georgia Aquarium	United States	—	2
Marine Megafauna Foundation	United States	—	2
Muséum national d'Histoire naturelle	France	SCImago #1948	2
Simon Fraser University	Canada	SCImago #1008 · THE 301–350 · QS =308	2
Macquarie University	Australia	SCImago #1047 · THE =166 · QS =138	2
Australian Institute of Marine Science	Australia	SCImago #4075	2
Large Marine Vertebrates Research Institute Philippines	Philippines	—	2

Institution	Country	World ranking	Citing papers
Institute for Marine and Antarctic Studies, University of Tasmania	Australia	—	2
Bimini Biological Field Station Foundation	The Bahamas	—	2
Technische Universität Braunschweig	Germany	SCImago #1962 · QS 711-720	2
Qatar University	Qatar	SCImago #988 · THE 201–250 · QS 112	2
University of Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	2

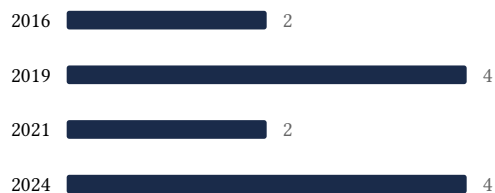
Geographic distribution of citing authors

Country	Citing papers
United States	10
United Kingdom	7
Australia	5
Canada	5
New Zealand	5
Brazil	5
France	4
Germany	4
Spain	3
Colombia	2
United Arab Emirates	2
Portugal	2

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.



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	Rays of the World	4	Dhanasar – Prong 2 (well-positioned)
Contribution 2	Higher-level elasmobranch phylogeny, basal squalans, and paraphyly	2	Dhanasar – Prong 2 (well-positioned)
Contribution 3	Taxonomic impediment or impediment to taxonomy? A commentary on systematics and the cybertaxonomic-automation paradigm	4	Dhanasar – Prong 2 (well-positioned)