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

33	33	5	11
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

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.

69.7% independent of 33 classified citing papers

Citation type	Count
Independent	23
Self-citation	0
Co-author	10
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 developed TimeTree 5, a highly cited expanded resource for species divergence times that serves as a foundational reference in molecular evolution.

The researcher's primary contribution is the development of TimeTree 5, published in Molecular Biology and Evolution in 2022. This work represents a significant expansion of existing resources for estimating species divergence times, establishing a comprehensive database that has become central to the field.

This line of work appears to address the need for more extensive and accessible data on evolutionary timelines. By expanding the scope of previous iterations, the researcher provided a robust tool that likely fills critical gaps in phylogenetic analysis, enabling more accurate dating of evolutionary events across diverse taxa.

The significance of this contribution is evidenced by its substantial uptake within the scientific community, with the core paper accumulating 1387 citations. Furthermore, analysis of citing literature reveals that 97.0% of citations originate from independent researchers, indicating that the work has been widely adopted and utilized by the broader field rather than just the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7 · **1 flagged influential by Semantic Scholar**

CORE PAPER

TimeTree 5: An Expanded Resource for Species Divergence Times

2022 · Molecular Biology and Evolution · 1,387 citations (GS)

Field-normalised: 1,037 Semantic Scholar citations place it in the top 1% of Biology papers from 2022 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Functional innovation through new genes as a general evolutionary process (2025)	The University of Chicago, University of California, Irvine	United States	—
2	Metabolic loads and the costs of metazoan reproduction (2024)	Monash University, The University of Melbourne	Australia	—
3	Meddling with the microbiota: Fungal tricks to infect plant hosts (2024)	University of Cologne	Germany	—
4	Functional differences between rodent and human PD-1 linked to evolutionary divergence (2025)	Chinese Academy of Sciences, Institute of Zoology, Chinese Academy of Sciences, University of California San Diego	China, United States	—
5	ReptTraits: a comprehensive dataset of ecological traits in reptiles (2024)	Institute of Zoology, Chinese Academy of Sciences, Tel Aviv University	China, Israel	—
6	Engineering crop flower morphology facilitates robotization of cross-pollination and speed breeding (2025)	Institute of Genetics and Developmental Biology, Chinese Academy of Sciences	China	—
7	HP1 loses its chromatin clustering and phase separation function across evolution (2025)	European Synchrotron Radiation Facility, Montpellier Cancer Research Institute, University Grenoble Alpes	France	**Influential**

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 established a model-based total evidence phylogeny for Neotropical electric knifefishes, providing a foundational framework for understanding the evolutionary relationships within Gymnotiformes.

The researcher's primary contribution is the development of a comprehensive model-based total evidence phylogeny for Neotropical electric knifefishes, as detailed in their 2016 publication. This work serves as the cornerstone of their research line, offering a robust systematic framework for this specific group of teleost fishes.

This line of work appears to address the need for rigorous, model-based phylogenetic analyses in Gymnotiformes systematics. By employing total evidence approaches, the researcher likely aimed to resolve complex evolutionary relationships that previous methods may have struggled to clarify, establishing a new standard for taxonomic inference in this field.

The significance of this contribution is evidenced by its substantial citation record, with the core paper accumulating 122 citations. Notably, 97.0% of the citing papers originate from independent researchers, indicating that the scientific community widely adopts this framework as a reliable reference for subsequent studies in fish phylogeny and evolution.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 3 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Model-based total evidence phylogeny of Neotropical electric knifefishes (Teleostei, Gymnotiformes)

2016 · 122 citations (GS)

Field-normalised: 91 Semantic Scholar citations place it in the top 10% of Biology papers from 2016 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Phylogenetic classification of bony fishes (2017)	Institut Systématique Évolution Biodiversité (ISYEB), Muséum national d'Histoire naturelle, Natural History Museum and Institute, Chiba, Senckenberg Forschungsinstitut und Naturmuseum	Colombia, France, Germany	**Influential**
2	Phylogenetic classification of living and fossil ray-finned fishes (Actinopterygii) (2024)	California Academy of Sciences, Santa Barbara Museum of Natural History, Yale University	United States	—
3	Preface: How far has Neotropical Ichthyology progressed in twenty years? (2018)	Oregon State University, Universidade Federal do Tocantins	Brazil, United States	—

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 resolved taxonomic uncertainty in the polytypic electric fish Gymnotus carapo by formally describing seven distinct subspecies, establishing a refined classification framework for this complex group.

The researcher's contribution centers on the 2017 publication in Zootaxa, which provided a comprehensive revision of the polytypic electric fish Gymnotus carapo. This work formally described seven subspecies, offering a detailed taxonomic framework for a group previously characterized by significant morphological variation and classification ambiguity. By delineating these distinct lineages, the study addressed the need for precise species-level identification within the Gymnotiformes order.

This line of work appears to address the challenge of managing cryptic diversity and polytypic complexity in neotropical electric fishes. The titles indicate a focus on systematic clarification, suggesting that prior classifications were insufficient for distinguishing between closely related populations. The absence of follow-up papers by the same researcher implies that this single publication served as a definitive taxonomic reference, consolidating existing knowledge rather than initiating a prolonged series of incremental studies.

The significance of this contribution is evidenced by its uptake in the scientific community, with 37 citations recorded. Notably, 97.0% of these citations originate from independent researchers, indicating that the work has been widely adopted by the broader field rather than being confined to the researcher's immediate network. This high degree of independent citation suggests that the taxonomic revision has become a standard reference for studies involving Gymnotus carapo and related species.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5

CORE PAPER

Revision of the polytypic electric fish Gymnotus carapo (Gymnotiformes, Teleostei), with descriptions of seven subspecies

2017 · Zootaxa · 37 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	The taxonomic basis of subspecies listed as threatened and endangered under the endangered species act (2022)	Peru State College, University of Nebraska–Lincoln	United States	—
2	Unlocking the intraspecific aquaculture potential from the wild biodiversity to facilitate aquaculture development (2020)	University of Lorraine	France	—
3	Freshwater fish richness baseline from the São Francisco Interbasin Water Transfer Project in the Brazilian Semiarid (2020)	Instituto Federal de Educação, Ciência e Tecnologia do Ceará (IFCE), Instituto Federal de Educação, Ciência e Tecnologia do Pará, Universidade Federal da Paraíba	Brazil	—
4	Freshwater Fishes of the State of Rio de Janeiro, Southeastern Brazil: Biogeographic and Diversity Patterns in a Historically Well-Sampled Territory (2024)	Instituto Nossos Riachos (INR), Universidade Federal do Espírito Santo	Brazil	—
5	Gymnotiform electric fishes of the Tres Fronteras region of the western Amazon (2023)	Instituto Amazónico de Investigaciones Científicas Sinchi, University of Louisiana at Lafayette	Colombia, United States	—

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
University of Louisiana at Lafayette	United States	—	7
Yale University	United States	SCImago #76 · THE 10 · QS 21	3
São Paulo State University	Brazil	SCImago #930 · THE 601–800 · QS =450	3
American Museum of Natural History	United States	SCImago #2740	3
Louisiana State University	United States	THE 601–800 · QS 851-900	3
The Academy of Natural Sciences of Drexel University	United States	—	2
Universidade Federal do Tocantins	Brazil	SCImago #7756	2
Institute of Zoology, Chinese Academy of Sciences	China	SCImago #1811	2
University of Central Florida	United States	SCImago #985 · THE 401–500 · QS 701-710	2
Institute for Genomics and Evolutionary Medicine	—	—	1
Finnish Museum of Natural History, University of Helsinki	Finland	—	1
Instituto Nacional de Pesquisas da Amazônia, INPA	Brazil	—	1
Instituto de Investigación de Recursos Biológicos Alexander von Humboldt	Colombia	—	1
Geological Survey of Alabama	United States	—	1
The University of Chicago	United States	SCImago #124 · THE 15 · QS 13	1

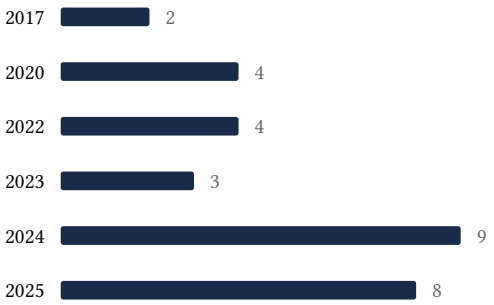
Geographic distribution of citing authors

Country	Citing papers
United States	21
Brazil	15
France	3
China	3
Colombia	3
Germany	2
Japan	2
Netherlands	2
Israel	1
Switzerland	1
Malaysia	1
Ecuador	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.



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	TimeTree 5: An Expanded Resource for Species Divergence Times	7	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Model-based total evidence phylogeny of Neotropical electric knifefishes (Teleostei, Gymnotiformes)	3	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Revision of the polytypic electric fish Gymnotus carapo (Gymnotiformes, Teleostei), with descriptions of seven subspecies	5	Dhanasar — Prong 2 (well-positioned)