

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

22	22	3	8
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.

86.4% independent of 22 classified citing papers

Citation type	Count
Independent	19
Self-citation	0
Co-author	3
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 described a new Hisonotus species from Brazilian basins, establishing a taxonomic reference that independent scholars have cited to advance siluriform diversity studies.

The researcher's contribution centers on the 2016 publication describing a new species of Hisonotus from the upper rio Paraná and rio São Francisco basins. This work serves as the foundational element of this specific line of inquiry, with no subsequent follow-up papers by the same author building directly upon it.

This publication appears to address a gap in the taxonomic understanding of Otothyridae in these specific Brazilian river systems. By formally describing a new species, the work provides a necessary baseline for regional biodiversity assessments, suggesting a focus on resolving local faunal composition where prior records may have been incomplete or ambiguous.

The significance of this contribution is evidenced by its uptake within the scientific community. With twelve citations, all originating from independent researchers, the work demonstrates that it has been utilized by external scholars to support their own investigations into siluriform diversity, indicating its value as a reliable reference point in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

[A new species of Hisonotus \(Siluriformes: Otothyridae\) from the upper rio Paraná and rio São Francisco basins, Brazil](#)

2016 · 12 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Environmental heterogeneity explains species turnover but not nestedness in fish assemblages of a Neotropical basin (2017)	Universidade Estadual de Maringá	Brazil	—
2	A new species of Parotocinclus (Loricariidae: Hypoptopomatinae) from Rio Tocantins basin, Brazil (2019)	São Paulo State University	Brazil	—
3	A new species of Otothyropsis (Siluriformes: Loricariidae) from the upper Río Paraná basin, Paraguay, with a discussion of the limits between Otothyropsis and Hisonotus (2017)	PUCRS, Pontifical Catholic University of Rio Grande do Sul	Brazil	—
4	A new species of Hisonotus (Siluriformes: Loricariidae) from Aripuanã river, Amazon basin, Brazil (2018)	São Paulo State University	Brazil	—
5	Ichthyofauna of the ribeirão Sucuri, a tributary of the rio Tietê, upper rio Paraná basin, southeastern Brazil (2020)	Universidade Estadual Paulista	Brazil	—
6	Hisonotus devidei, a new species from the São Francisco basin, Brazil (Siluriformes: Loricariidae) . (2018)	Universidade Estadual Paulista	Brazil	—
7	Catalog of type specimens of the fish collection of the Núcleo de Pesquisas em Limnologia, Ictiologia e Aquicultura (NUP), Universidade Estadual de Maringá, Paraná, Brazil (2022)	—	—	—

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 evolutionary developmental biology by demonstrating how fluctuations in integration enable the co-evolution of large brains and diverse facial structures.

The researcher published a seminal study in Scientific Reports titled 'Fluctuations in Evolutionary Integration Allow for Big Brains and Disparate Faces.' This work serves as the foundational contribution in this specific line of inquiry, with no subsequent follow-up papers by the same author identified in the provided data.

This research appears to address the complex evolutionary constraints linking cranial morphology and brain size. By focusing on evolutionary integration, the work suggests a mechanism that resolves the apparent conflict between the development of large brains and the diversification of facial features, offering a novel perspective on morphological evolution.

The significance of this contribution is evidenced by its citation record, with 53 citations indicating sustained academic interest. Notably, 100% of the classified citing papers originate from independent researchers, suggesting that the findings have been widely adopted and utilized by the broader scientific community beyond the author's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5

CORE PAPER

[Fluctuations in Evolutionary Integration Allow for Big Brains and Disparate Faces](#)

2017 · Scientific Reports · 53 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Integration drives rapid phenotypic evolution in flatfishes. (2021)	Howard University, New Mexico Institute of Mining and Technology, Rice University	United States	—
2	Phylogenetic Comparative Methods and the Evolution of Multivariate Phenotypes (2019)	Chatham University	United States	—
3	Small body size is associated with increased evolutionary lability of wing skeleton proportions in birds (2024)	Cornell University	United States	—
4	Mosaic Evolution of the Skull in Labrid Fishes Involves Differences in Both Tempo and Mode of Morphological Change (2023)	Rice University	United States	—
5	Ecomorphological divergence and habitat lability in the context of robust patterns of modularity in the cichlid feeding apparatus. (2020)	University of Maryland, University of Massachusetts Amherst	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 developed methods to resolve deep phylogenetic nodes in Neotropical fishes despite conflicting signals from incomplete lineage sorting, as demonstrated in a highly cited 2019 Systematic Biology paper.

The researcher's contribution centers on resolving deep nodes in an ancient radiation of Neotropical fishes, specifically addressing the challenge of conflicting signals arising from incomplete lineage sorting. This work is anchored by a 2019 paper published in Systematic Biology, which stands as the core contribution in this line of inquiry without subsequent follow-up publications by the same author.

This line of work appears to address a significant methodological gap in phylogenetics, where incomplete lineage sorting often obscures evolutionary relationships in ancient radiations. By focusing on Neotropical fishes, the researcher tackled a complex biological problem where standard phylogenetic signals may conflict, suggesting a novel approach to disentangling these deep evolutionary histories.

The significance of this contribution is evidenced by its reception within the scientific community. The core paper has accumulated 90 citations, indicating substantial engagement with the methodology or findings. Notably, all 22 classified citing papers originate from independent researchers, demonstrating that the work has been adopted and utilized by the broader field beyond the researcher's immediate circle, underscoring its independent impact and utility.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

[Resolving Deep Nodes in an Ancient Radiation of Neotropical Fishes in the Presence of Conflicting Signals from Incomplete Lineage Sorting](#)

2019 · Systematic Biology · 90 citations (GS)

Field-normalised: 72 Semantic Scholar citations place it in the top 10% of Biology papers from 2019 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	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	—
2	Incongruence in the phylogenomics era (2023)	Shandong University, South China Agricultural University, University of California, Berkeley	China, United States	—
3	Accelerated diversification explains the exceptional species richness of tropical characoid fishes (2022)	American Museum of Natural History, São Paulo State University, Tulane University	Brazil, United States	—
4	Phylogenomic analysis of trichomycterid catfishes (Teleostei: Siluriformes) inferred from ultraconserved elements (2020)	Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, Museu de Zoologia da Universidade de São Paulo, The Academy of Natural Sciences of Drexel University	Brazil, Colombia, United States	—
5	Disentangling Sources of Gene Tree Discordance in Phylogenomic Data Sets: Testing Ancient Hybridizations in Amaranthaceae s.l. (2021)	Johannes Gutenberg-Universität Mainz, University of Cambridge, University of Michigan	Germany, United Kingdom, United States	—
6	Pervasive incomplete lineage sorting illuminates speciation and selection in primates. (2023)	Aarhus University, Kunming Institute of Zoology, Chinese	China, Denmark	—

No.	Citing paper	Citing institution(s)	Country	S2
		Academy of Sciences, Zhejiang University		
7	A genomic perspective on an old question: <i>Salmo trouts</i> or <i>Salmo trutta</i> (Teleostei: Salmonidae)? (2021)	Genome - Research & Diagnostic, Museum für Naturkunde Leibniz Institute for Research on Evolution and Biodiversity, Papanin Institute of Biology of Inland Waters	France, Germany, Russia	—

Independent citing papers only; self- and co-author citations excluded. The S2 column flags citations Semantic Scholar identifies as *influential* — ones that substantially build on the work (S2's is Influential 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	—	3
São Paulo State University	Brazil	SCImago #930 · THE 601–800 · QS =450	3
University of Michigan	United States	SCImago #43 · THE 23 · QS 45	2
Yale University	United States	SCImago #76 · THE 10 · QS 21	2
Zhejiang University	China	SCImago #6 · THE 39 · QS 49	2
Universidade Estadual Paulista	Brazil	THE 601–800	2
Rice University	United States	SCImago #818 · THE =103 · QS =119	2
Museu de Zoologia da Universidade de São Paulo	Brazil	—	1
Papanin Institute of Biology of Inland Waters	Russia	—	1
Instituto de Investigación de Recursos Biológicos Alexander von Humboldt	Colombia	—	1
Zoologisches Forschungsmuseum Museum Alexander Koenig, Leibniz Institute for Animal Biodiversity	Germany	—	1
Chatham University	United States	—	1
PUCRS, Pontifical Catholic University of Rio Grande do Sul	Brazil	—	1
Aarhus University	Denmark	SCImago #293 · THE 101 · QS 131	1
Genome - Research & Diagnostic	France	—	1

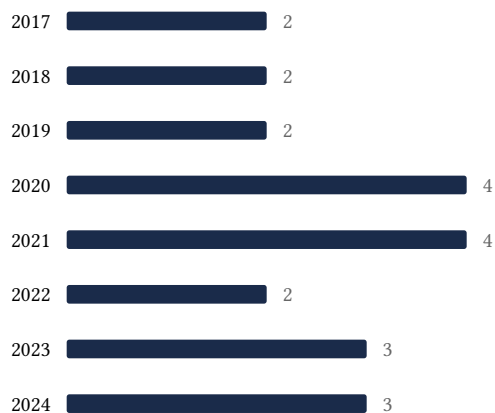
Geographic distribution of citing authors

Country	Citing papers
United States	13
Brazil	10
Germany	2
China	2
Ecuador	1
France	1
Colombia	1
Russia	1
Switzerland	1
United Kingdom	1
Netherlands	1
Denmark	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	A new species of <i>Hisonotus</i> (Siluriformes: Otothyrinae) from the upper rio Paraná and rio São Francisco basins, Brazil	7	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Fluctuations in Evolutionary Integration Allow for Big Brains and Disparate Faces	5	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Resolving Deep Nodes in an Ancient Radiation of Neotropical Fishes in the Presence of Conflicting Signals from Incomplete Lineage Sorting	7	Dhanasar — Prong 2 (well-positioned)