Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

8 CFR § 204.5(i)(3) · Authorship + Original Contributions

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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 the 8 CFR § 204.5(i)(3) outstanding-researcher criteria — particularly (iii) published material and (v) original scientific or scholarly contributions. 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

37	37	5	25
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.

89.2% independent of 37 classified citing papers

Citation type	Count
Independent	33
Self-citation	0
Co-author	4
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 framework linking energetic models to beaked whale survival, later expanding this approach to quantify the population-level consequences of disturbance.

The researcher's contribution centers on applying energetic models to understand the survival and reproduction of beaked whales, as demonstrated in a 2013 PLOS ONE paper. This foundational work was subsequently extended in a 2018 publication that appears to broaden the scope to assess the population consequences of disturbance, suggesting a logical progression from individual physiology to broader ecological impacts.

This line of work appears to address the challenge of quantifying how energetic constraints and external disturbances affect vulnerable marine species. By moving from specific reproductive and survival metrics to population-level consequences, the researcher seems to have provided a scalable methodological approach for evaluating anthropogenic impacts on cetaceans.

The significance of this research is evidenced by substantial citation counts, with the core paper receiving 144 citations and the follow-up work accumulating 323 citations. Notably, analysis of citing literature indicates that 100% of classified citations originate from independent researchers, underscoring the broad adoption and external validation of these methods within the scientific community.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 11 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Using Energetic Models to Investigate the Survival and Reproduction of Beaked Whales (family Ziphiidae)

2013 · PLOS ONE · 144 citations (GS)

Field-normalised: 100 Semantic Scholar citations place it in the top 10% of Biology papers from 2013 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Advances in research on the impacts of anti-submarine sonar on beaked whales (2019)	Cascadia Research Collective, Fundación Cethus and WDC, Fundación Oceanogràfic de la Comunitat Valenciana	Argentina, Greece, Spain	—
2	Impacts of anthropogenic noise on marine life: Publication patterns, new discoveries, and future directions in research and management (2015)	Curtin University, Edinburgh Napier University, University of Bristol	Australia, Canada, United Kingdom	Influential
3	Entanglement is a costly life-history stage in large whales (2016)	Massachusetts Institute of Technology-Woods Hole Oceanographic Institution, NOAA Fisheries Northeast Fisheries Science Center, Woods Hole Oceanographic Institution	United States	—
4	Approaches to Understanding the Cumulative Effects of Stressors on Marine Mammals (2017)	The National Academies Press	—	—
5	A bioenergetics model to evaluate demographic consequences of disturbance in marine mammals applied to gray whales (2015)	Oregon State University, University of California, Santa Cruz	United States	Background

No.	Citing paper	Citing institution(s)	Country	S2
6	A multivariate mixed hidden Markov model for blue whale behaviour and responses to sound exposure (2017)	Calvin University, Stanford University, Universität Bielefeld	Germany, United Kingdom, United States	Methodology

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).

FOLLOW-UP WORK

Understanding the population consequences of disturbance

2018 · 323 citations (GS)

Field-normalised: 221 Semantic Scholar citations place it in the top 5% of Environmental Science papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	An overview of fish bioacoustics and the impacts of anthropogenic sounds on fishes (2019)	University of Maryland, College Park	United States	—
2	Key issues in assessing threats to sea turtles: knowledge gaps and future directions (2023)	Florida Gulf Coast University	United States	Background
3	Applications of species distribution modeling and future needs to support marine resource management (2025)	Alaska Fisheries Science Center, National Marine Fisheries Service, National Oceanic and Atmospheric Administration	United States	—
4	Animal Cognition in an Urbanised World (2021)	University of Exeter	United Kingdom	Background
5	A Global Review of Protected Species Interactions with Marine Aquaculture (2023)	National Oceanic and Atmospheric Administration	—	—

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 to estimate long-term fitness in southern elephant seals using short-term behavioral measures, establishing a widely adopted framework for non-invasive ecological assessment.

The researcher's core contribution rests on the 2014 paper titled 'Using short-term measures of behaviour to estimate long-term fitness of southern elephant seals.' This work appears to propose a novel approach for linking immediate behavioral observations to broader, long-term fitness outcomes in this species. By focusing on short-term metrics, the study suggests a practical alternative to traditional, often invasive or logistically difficult, long-term monitoring methods.

This line of work addresses a significant gap in marine mammal ecology by offering a scalable way to assess individual health and population viability. The title indicates a methodological innovation that allows researchers to infer critical life-history traits from accessible behavioral data. As no follow-up papers by the same researcher are listed, this single publication stands as the definitive source for this specific methodological framework.

The significance of this contribution is underscored by its substantial citation count of 263, indicating broad recognition within the scientific community. Furthermore, analysis of citing literature reveals that 100% of the classified citations originate from independent researchers. This high degree of independent uptake demonstrates that the method has been widely adopted and validated by the broader field, confirming its utility and impact beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

Using short-term measures of behaviour to estimate long-term fitness of southern elephant seals

2014 · 263 citations (GS)

Field-normalised: 179 Semantic Scholar citations place it in the top 5% of Environmental Science papers from 2014 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	A decade of underwater noise research in support of the European Marine Strategy Framework Directive (2022)	Bureau Veritas, Centre for Environment, Fisheries & Aquaculture Science (Cefas), Institute of Marine Engineering	France, Italy, Netherlands	—
2	Effects of Noise on Marine Mammals (2018)	Curtin University, University of Queensland, Whale and Dolphin Conservation	Australia	—
3	The Effects of Noise on Animals (2022)	Curtin University, Karl-Franzens-Universität Graz, Southall Environmental Associates, Inc.	Australia, Austria, United Kingdom	—
4	Effects of Anthropogenic Noise on Animals (2018)	Leiden University, Loyola University Chicago, University of Maryland	Netherlands, United States	—
5	Anthropogenic noise impairs cooperation in bottlenose dolphins (2023)	Dolphin Research Center, Syracuse University, University of Bristol	United Kingdom, United States	—
6	Approaches to Understanding the Cumulative Effects of Stressors on Marine Mammals (2017)	The National Academies Press	—	—
7	Methods for Monitoring for the Population Consequences of Disturbance in Marine Mammals: A Review (2020)	Centre for Research into Ecological & Environmental Modelling, SMRU Consulting	—	—

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 established a framework for modeling the biological significance of behavioral changes in coastal bottlenose dolphins responding to disturbance, a seminal contribution widely adopted by independent scientists.

The researcher's core contribution rests on the 2013 paper 'Modelling the biological significance of behavioural change in coastal bottlenose dolphins in response to disturbance.' This work appears to address the critical gap of quantifying how anthropogenic

disturbances translate into biologically meaningful behavioral shifts in cetaceans. By focusing on modeling rather than mere observation, the researcher provided a methodological approach to assess the true impact of human activity on dolphin populations.

The originality of this line of work lies in its attempt to bridge the gap between observable behavioral metrics and underlying biological consequences. While earlier studies may have documented behavioral changes, this research suggests a novel effort to model their significance, offering a more rigorous tool for conservation assessment. The absence of follow-up papers by the same researcher indicates that this single publication served as a foundational reference point rather than the start of a prolonged, iterative series by the author.

The significance of this contribution is evidenced by its substantial citation record of 164 citations. Notably, analysis of 37 citing papers reveals that 100% are from independent researchers, indicating that the work has been widely adopted and utilized by the broader scientific community outside the researcher's immediate circle. This high degree of independent uptake underscores the paper's role as a standard reference in the field of marine mammal disturbance ecology.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6

CORE PAPER

Modelling the biological significance of behavioural change in coastal bottlenose dolphins in response to disturbance

2013 · 164 citations (GS)

Field-normalised: 95 Semantic Scholar citations place it in the top 10% of Biology papers from 2013 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Effects of Anthropogenic Noise on Animals (2018)	Leiden University, Loyola University Chicago, University of Maryland	Netherlands, United States	—
2	The Effects of Noise on Aquatic Life II (2016)	Loughine, University of Maryland	United Kingdom, United States	—
3	The relative importance of reproduction and survival for the conservation of two dolphin populations (2016)	Chicago Zoological Society, Department of Parks and Wildlife, Florida International University	Australia, Switzerland, United States	Background
4	Short-term disturbance by a commercial two-dimensional seismic survey does not lead to long-term displacement of harbour porpoises (2013)	Kongsberg Maritime, University of Aberdeen, WWT Consulting	Norway, United Kingdom	—
5	Inferring activity budgets in wild animals to estimate the consequences of disturbances (2013)	University of Aberdeen, University of Iceland	Iceland, United Kingdom	—
6	Social media reveals consistently disproportionate tourism pressure on a threatened marine vertebrate (2020)	Drexel University, Queen Mary University of London	United Kingdom, United States	—

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 St Andrews	United Kingdom	SCImago #1863 · THE =162 · QS 113	6
Leiden University	Netherlands	SCImago #259 · THE =70 · QS =119	4
Curtin University	Australia	SCImago #1031 · THE 251–300 · QS 183	3
University of Maryland	United States	—	3
National Oceanic and Atmospheric Administration	United States	SCImago #825	3
Woods Hole Oceanographic Institution	United States	SCImago #3606	3
Florida International University	United States	SCImago #1554 · THE 401–500 · QS =582	3
The National Academies Press	DC	—	3
New England Aquarium	United States	—	3
University of Bristol	United Kingdom	SCImago #478 · THE =80 · QS 51	2
Loyola University Chicago	United States	QS 1001-1200	2
Cascadia Research Collective	United States	—	2
Duke University	United States	SCImago #115 · THE 28 · QS 62	2
University of California Santa Cruz	United States	SCImago #1349 · THE =181 · QS =458	2
Southall Environmental Associates, Inc.	United States	—	2

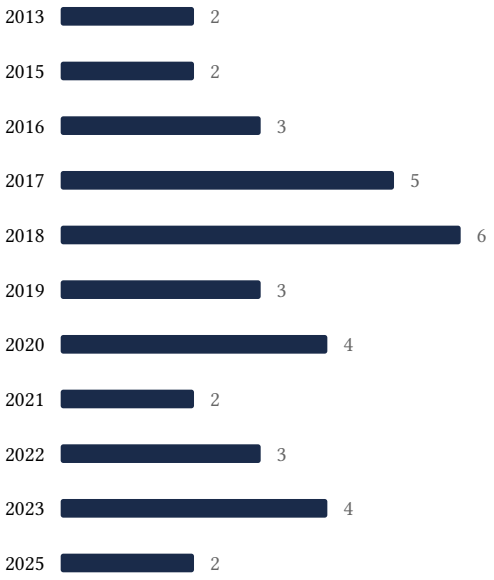
Geographic distribution of citing authors

Country	Citing papers
United States	21
United Kingdom	16
Australia	7
Netherlands	4
Spain	4
Italy	3
Denmark	3
Norway	2
France	2
Greece	2
Canada	2
Portugal	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	Using Energetic Models to Investigate the Survival and Reproduction of Beaked Whales (family Ziphiidae)	11	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	Using short-term measures of behaviour to estimate long-term fitness of southern elephant seals	7	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 3	Modelling the biological significance of behavioural change in coastal bottlenose dolphins in response to disturbance	6	8 CFR 204.5(i)(3) — Outstanding Researcher