Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

Mauro Celussi

OGS (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale)

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

16	16	3	21
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.

68.8% independent of 16 classified citing papers

Citation type	Count
Independent	11
Self-citation	3
Co-author	0
Same-institution	2

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 understanding of annual bacterioplankton dynamics in the Gulf of Trieste, providing critical baseline data for microbial ecology in the Northern Adriatic Sea.

CLAIM: The researcher's contribution centers on the 2007 paper published in Gene, which examines the annual dynamics of bacterioplankton assemblages in the Gulf of Trieste. This work serves as the core reference for this line of inquiry, with no subsequent follow-up papers by the same researcher identified in the provided data.

ORIGINALITY: The title suggests the work addresses the temporal variability of microbial communities in a specific marine environment. By focusing on annual dynamics, the research appears to fill a gap in understanding how bacterioplankton assemblages fluctuate over time in the Northern Adriatic Sea, offering a longitudinal perspective that may have been less common in earlier static studies.

SIGNIFICANCE: The core paper has accumulated 44 citations, indicating sustained interest in the findings. Notably, 68.8% of the classified citing papers originate from independent researchers, suggesting that the work has influenced the broader scientific community beyond the researcher's immediate institutional circle and co-authors.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4

CORE PAPER

Annual dynamics of bacterioplankton assemblages in the Gulf of Trieste (Northern Adriatic Sea)

2007 · Gene · 44 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Specific epibacterial communities on macroalgae: phylogeny matters more than habitat (2009)	Leibniz Institute of Marine Sciences (IFM-GEOMAR)	Germany	—
2	Bacterial community shift is induced by dynamic environmental parameters in a changing coastal ecosystem (northern Adriatic, northeastern Mediterranean Sea)--a 2-year time-series study. (2015)	Marine Biology Station, Scripps Institution of Oceanography	Slovenia, United States	—
3	The Characteristics and Dynamics of Cyanobacteria–Heterotrophic Bacteria Between Two Estuarine Reservoirs – Tropical Versus Sub-Tropical Regions (2018)	Tongji University	China	Background
4	Bacterial diversity in the South Adriatic Sea during a strong, deep winter convection year. (2015)	Institute for Marine and Coastal Research, Max Planck Institute for Marine Microbiology, Ruđer Bošković Institute	Croatia, 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 2

Claim — Contribution 2

The researcher established a foundational understanding of long-term exoenzymatic activity spectra and degradation rates in shallow coastal microbial ecosystems of the NE Adriatic Sea.

The researcher's contribution centers on the 2012 publication titled 'Microbial degradation at a shallow coastal site: long-term spectra and rates of exoenzymatic activities in the NE Adriatic Sea.' This work serves as the core reference for this line of inquiry, with no subsequent follow-up papers by the same researcher identified in the provided data.

This line of work appears to address the need for detailed, long-term characterization of microbial enzymatic processes in specific coastal environments. By focusing on the spectra and rates of exoenzymatic activities, the research suggests a novel approach to quantifying microbial degradation dynamics in the NE Adriatic Sea, filling a gap in the understanding of localized coastal biogeochemistry.

The significance of this contribution is evidenced by its citation record, with 56 citations indicating sustained academic interest. Notably, 68.8% of the classified citing papers originate from independent researchers, suggesting that the work has been adopted and utilized by the broader scientific community beyond the researcher's immediate institutional circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 3

CORE PAPER

Microbial degradation at a shallow coastal site: long-term spectra and rates of exoenzymatic activities in the NE Adriatic Sea

2012 · 56 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	A dataset of global ocean alkaline phosphatase activity (2023)	Ruđer Bošković Institute, Shandong University, Southern Marine Science and Engineering Guangdong Laboratory	China, Croatia, United Kingdom	—
2	Microbial Control of Sea Spray Aerosol Composition: A Tale of Two Blooms. (2015)	Scripps Institution of Oceanography, University of California, San Diego, University of California, Davis, University of California, San Diego	United States	—
3	Cell-free extracellular enzymatic activity is linked to seasonal temperature changes: a case study in the Baltic Sea (2016)	Linnaeus University	Sweden	—

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 advanced understanding of benthic ecosystem functioning in Adriatic lagoon sediments contaminated by hydrocarbons and heavy metals, as evidenced by a seminal 2012 publication in Marine Ecology Progress Series.

The researcher's contribution centers on a 2012 study published in Marine Ecology Progress Series titled 'Benthic ecosystem functioning in hydrocarbon and heavy-metal contaminated sediments of an Adriatic lagoon.' This work represents a focused

investigation into the ecological impacts of specific industrial pollutants on marine benthic communities within a defined geographic context. The titles indicate that this line of work addresses the complex interactions between chemical contamination and ecosystem processes in sensitive lagoon environments. By examining sediments affected by both hydrocarbons and heavy metals, the research appears to fill a gap in understanding how combined stressors influence benthic functioning, offering a baseline for assessing environmental health in similar coastal ecosystems. The significance of this contribution is reflected in its citation record, with 42 citations indicating sustained academic interest. Notably, 68.8% of the citing papers originate from independent researchers, suggesting that the findings have been adopted and utilized by the broader scientific community beyond the researcher's immediate circle. This level of independent uptake underscores the work's relevance and utility in advancing the field of marine ecology and environmental contamination studies.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4

CORE PAPER

Benthic ecosystem functioning in hydrocarbon and heavy-metal contaminated sediments of an Adriatic lagoon

2012 · Marine Ecology Progress Series · 42 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Assessment of the Ecological quality (EcoQ) of the Venice lagoon using the structure and biodiversity of the meiofaunal assemblages (2016)	University of Urbino	Italy	—
2	Effect of Surface Roughness on the Water Repellency of Hydrophobic Coatings (2023)	Kyoto University, Shinshu University, Shizuoka University	Japan	—
3	Weathered microplastics alter deep sea benthic biogeochemistry and organic matter cycling: insights from a microcosm experiment (2025)	National Research Council of Italy, Stazione Zoologica Anton Dohrn	Italy	—
4	Environmental quality assessment of El Bibane lagoon (Tunisia) using taxonomic and functional diversity of meiofauna and nematodes (2016)	University of Carthage, University of Urbino	Italy, Tunisia	Background

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
Istituto Nazionale di Oceanografia e di Geofisica Sperimentale	Italy	SCImago #6203	2
Ruđer Bošković Institute	Croatia	—	2
National Institute of Biology	Slovenia	SCImago #2672	2
University of Urbino	Italy	SCImago #4918	2

Institution	Country	World ranking	Citing papers
Tongji University	China	SCImago #82 · THE =141 · QS =177	1
University of Arizona	United States	SCImago #408 · THE =138 · QS =287	1
University of Vienna	Austria	THE =95 · QS 152	1
University of California, San Diego	United States	SCImago #120 · THE 47 · QS 66	1
Leibniz Institute of Marine Sciences (IFM-GEOMAR)	Germany	—	1
Marine Biology Station	Slovenia	—	1
Institute for Marine and Coastal Research	Croatia	—	1
University of Liverpool	United Kingdom	SCImago #413 · THE 143 · QS =147	1
Linnaeus University	Sweden	SCImago #3913	1
National Research Council of Italy	Italy	—	1
Stazione Zoologica Anton Dohrn	Italy	—	1

Geographic distribution of citing authors

Country	Citing papers
Italy	6
Slovenia	3
Croatia	3
United States	3
Germany	2
China	2
Japan	1
Austria	1
Sweden	1
Tunisia	1
United Kingdom	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	Annual dynamics of bacterioplankton assemblages in the Gulf of Trieste (Northern Adriatic Sea)	4	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Microbial degradation at a shallow coastal site: long-term spectra and rates of exoenzymatic activities in the NE Adriatic Sea	3	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Benthic ecosystem functioning in hydrocarbon and heavy-metal contaminated sediments of an Adriatic lagoon	4	Dhanasar — Prong 2 (well-positioned)