PROTECT *the* PUBLIC'S TRUST

May 6, 2026

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Re: Request for Correction Under the Information Quality Act

Dear Sirs:

The American people deserve to know that their government's policies are informed by scientific information and research that meets the highest standards of quality. This is particularly so with issues of great importance like ensuring that the status of species is correctly determined with sound data, a transparent process, and free from conflicts of interest. This is all the more imperative where the integrity of information at issue has the demonstrated potential to impact the security of the nation.

Protect the Public's Trust (PPT) is a nonpartisan organization dedicated to promoting ethics in government and restoring the public's trust in government officials. PPT submits this Request for Correction ("RFC") pursuant to (1) the Information Quality Act (IQA),[1] (2) OMB's government-

[1] Treasury and General Government Appropriations Act for Fiscal Year 2001, Pub. L. No. 106-554, § 515(b)(2)(A) (2000) (codified at 44 U.S.C. § 3516 note), See https://www.govinfo.gov/content/pkg/PLAW-106publ554/pdf/PLAW-106publ554.pdf.

wide guidelines implementing the IQA;[2] and (3) the National Oceanic and Atmospheric Administration's ("NOAA") Information Quality Guidelines, which require that information disseminated by NOAA meet standards of quality, objectivity, utility, and integrity.[3] Additionally, the RFC is grounded in: (4) Executive Order 14303 ("Restoring Gold Standard Science");[4] and (5) the Department of Commerce's Gold Standard Science Implementation Report submitted to OSTP in August 2025.[5] We submit the Request for Correction to NOAA, requesting that you apply these standards to review the information identified below and take appropriate action to reverse the listing of the Rice's whale under the Endangered Species Act.

I. Grounds for Review Under the IQA

A. Background

The information at issue includes the National Marine Fisheries Service (NMFS) Status Review of Bryde's Whales in the Gulf of Mexico produced by Dr. Patricia E. Rosel as lead author, evidently in her official NMFS capacity.[6] ("Rosel 2016" or "Status Review") The Status Review served as the scientific and analytical framework for the 2019 ESA endangered listing of the Bryde's whale.[7]

This RFC additionally raises concerns about Rosel et al. (2021), which triggered the reclassification of the Bryde's whale from subspecies to a new full species classification named *Balaenoptera ricei*, i.e., Rice's whale. ("Rosel 2021" or the "Species Description Paper").[8] This reclassification was the statutory and scientific predicate for a series of significant downstream regulatory consequences. Notably, the impact of these regulatory actions contributed to the

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[2] Office of Management and Budget, "Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies," 67 Federal Register 8452 (February 22, 2002), https://www.govinfo.gov/content/pkg/FR-2002-02-22/pdf/R2-59.pdf.

[3] National Oceanic and Atmospheric Administration, Information Quality Guidelines (last updated July 17, 2024), https://www.noaa.gov/organization/information-technology/policy-oversight/information-quality/information-quality-guidelines. NOAA issued these guidelines pursuant to Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Pub. L. No. 106-554, and OMB's government-wide guidelines, 67 Federal Register 8452 (February 22, 2002).

[4] Exec. Order No. 14303, "Restoring Gold Standard Science," 90 Federal Register 22601 (May 29, 2025), https://www.govinfo.gov/content/pkg/FR-2025-05-29/pdf/2025-09802.pdf.

[5] U.S. Department of Commerce, Gold Standard Science Implementation Plan (Washington, DC: U.S. Department of Commerce, August 22, 2025) (submitted pursuant to Exec. Order No. 14,303, § 3(d), 90 Federal Register 22601, 22603 (May 29, 2025)), https://www.commerce.gov/sites/default/files/2025-08/Report-to-OSTP-on-GSS-Implementation.pdf.

[6] P.E. Rosel, P. Corkeron, L. Engleby, D. Epperson, K.D. Mullin, M.S. Soldevilla, and B.L. Taylor, Status Review of Bryde's Whales (Balaenoptera edeni) in the Gulf of Mexico under the Endangered Species Act, NOAA Technical Memorandum NMFS-SEFSC-692 (Washington, DC: NOAA/NMFS, 2016), https://doi.org/10.7289/V5/TM-SEFSC-692.

[7] Rosel et al., Status Review, supra note 6. The Status Review formed a primary scientific foundation for the 2019 ESA endangered listing. See "Endangered and Threatened Wildlife and Plants; Endangered Status of the Gulf of Mexico Bryde's Whale," 84 Federal Register 15446, 15449 (April 15, 2019), https://www.govinfo.gov/content/pkg/FR-2019-04-15/pdf/2019-06917.pdf.

[8] P.E. Rosel, L.A. Wilcox, T.K. Yamada, and K.D. Mullin, "A New Species of Baleen Whale (Balaenoptera) from the Gulf of Mexico, with a Review of Its Geographic Distribution," Marine Mammal Science 37, no. 2 (2021): 577-610 (published online Jan. 10, 2021), https://doi.org/10.1111/mms.12776.

convening on March 31, 2026, of the Endangered Species Committee (the "God Squad"), which met for the first time since 1992 and rendered a unanimous vote to grant the first ESA exemption on national security grounds in the statute's history. The vote exempted oil and gas exploration, development, and production activities associated with the federal Gulf oil and gas program from ESA Section 7 consultation requirements.[9] The integrity of this regulatory chain depends on the integrity of the information at each foundational step.

This RFC also identifies overlapping roles held by Dr. Paticia Rosel that raise questions about the processes by which scientific decisions were made. Specifically, during the period relevant to this RFC, Dr. Rosel held a series of institutional roles that, taken together, concentrated influence over the production, publication, and validation of the scientific determinations at issue in a single individual:

- *NMFS Federal Scientist and Lead Author:* Lead author of both Rosel et al. (2016) and Rosel et al. (2021), presumably produced in her NMFS capacity as a scientist at the Southeast Fisheries Science Center.
- *Deputy Editor, Marine Mammal Science*: The journal in which Rosel et al. (2021) was published, and whose Board of Editors are responsible for determining content for the Society's journal by evaluating feedback from selected reviewers and making decisions on all manuscripts submitted to the journal.
- *Chair, SMM Committee on Taxonomy*: The professional committee that formally evaluated and accepted the conclusions of Rosel et al. (2021), and whose acceptance NMFS cited as the basis for reclassifying the listed entity from a subspecies of Bryde's whale to a full species, Rice's whale, by direct final rule.

This RFC identifies questions about scientific methodology, conflict of interest (COI) disclosures, and process transparency that appear to warrant investigation by your office and, if confirmed, correction pursuant to the IQA and other authorities referenced above. The concerns fall into three categories: (1) scientific questions about the underlying data and methodology; (2) potential conflicts of interest that may not have been disclosed or reviewed; and (3) other apparent gaps in transparency and process. Specific questions for NOAA's consideration, investigation, and correction are set forth in Section VII. As a consequence of the resulting sequence of events, we believe the government arrived at decisions that were at best premature, and that were not consistent with Gold Standard Science.

[9] "Endangered Species Committee Meeting Announcement," 91 Federal Register 12671 (Mar. 16, 2026) (FR Doc. 2026-05242), https://www.govinfo.gov/content/pkg/FR-2026-03-16/pdf/2026-05242.pdf; Matthew Brown (AP), "Federal 'God Squad' Exempts Oil and Gas Drilling in the Gulf from Endangered Species Rules," Mississippi Today, Mar. 31, 2026, https://mississippitoday.org/2026/03/31/gulf-oil-gas-drilling-endangered-species/; Ari Natter and Jennifer A. Dlouhy, "Meet the 'God Squad,'" TIME, Mar. 31, 2026 (quoting Secretary Burgum announcing exemption "for all oil and gas exploration, development and production activities associated with the . . . outer continental shelf oil and gas program"), https://time.com/article/2026/03/31/endangered-species-protections-commitee-gulf-of-mexico-oil-gas-drilling/.

B. PPT is an "Affected Person" Under the IQA

PPT is authorized to bring this RFC as an "affected person" within meaning of the IQA and NOAA's Information Quality Guidelines, which define that term as "an individual or entity that uses, benefits from, or is harmed by the disseminated information at issue."[10] In developing the definition of an affected person, OMB considered proposals to limit the affected person category to scientists or to persons with direct economic interests, concluding that the definition should be read broadly to include people "who may benefit or be harmed by the disseminated information."[11]

PPT satisfies the affected person standard on each of its three prongs. PPT *uses* the disseminated information: as a nonpartisan organization dedicated to monitoring and reporting on the ethics and integrity of the federal government, PPT has a five-year track record of obtaining records from public agencies, reviewing and analyzing those records and disseminating the results to a wide range of members of the public. PPT necessarily uses information like NOAA's scientific publications and the regulatory documents that rely on them in conducting its oversight mission. Rosel (2016), Rosel (2021), and the downstream regulatory actions premised on each publication are among the types of federal agency conduct PPT monitors for compliance with applicable scientific integrity, conflict of interest, and transparency standards. PPT also *benefits from* the disseminated information when it accurately reflects the best available science and was produced through a process consistent with applicable standards because information of that quality enables PPT to accurately assess and report on agency conduct. And PPT is *harmed* when the information does not meet those standards as the dissemination of information produced through undisclosed conflicts of interest and without adequate transparency undermines the integrity of the regulatory process PPT exists to oversee, and impairs PPT's ability to accurately report to the public on the quality of the scientific foundation underlying significant federal regulatory actions with, as is the case here, national economic and security implications.

II. Applicable Standards

A. The Information Quality Act

1. Baseline Requirements Applicable to All Scientific Information

The Information Quality Act requires each federal agency subject to the Paperwork Reduction Act to "issue guidelines ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by the agency."[12] Pursuant to that mandate, OMB issued government-wide implementing guidelines in 2002, supplemented by

[10] NOAA, Information Quality Guidelines, supra note 3, Part III.A.4.
[11] See Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 66 Federal Register 49718, 49722 (September 28, 2001) (discussing the affected person definition), https://www.govinfo.gov/content/pkg/FR-2001-09-28/pdf/01-24172.pdf.
[12] Treasury and General Government Appropriations Act for Fiscal Year 2001, supra note 1.

OMB Memorandum M-19-15 in 2019,[13] establishing a tiered quality framework under which the level of rigor required corresponds to the significance of the information's likely use.[14] The three baseline standards under the IQA of utility, objectivity, and integrity apply to all information NOAA disseminates.

Pursuant to that same mandate, NOAA issued its own Information Quality Guidelines, which implement the IQA and OMB's government-wide guidelines for all information NOAA disseminates, noting that "Information quality is composed of three elements: utility, integrity and objectivity."[15] The guidelines note that "OMB describes 'fitness for purpose' as the relevant touchstone; information destined for a higher-impact purpose must be held to higher standards of quality."[16] The guidelines also state that "Utility means that disseminated information is useful to its intended users" and integrity requires that NOAA information "is safeguarded from improper access, modification, or destruction," neither of which are at issue in the present case. The third standard, objectivity, "ensures that information is accurate, reliable, and unbiased," which is where many of our questions lie.[17]

The NOAA breaks disseminated information down into seven categories, among them interpreted products, "those that have been developed through interpretation of original data and synthesized products… incorporates additional contextual and/or normative data, standards, or information that puts original data and synthesized products into larger spatial, temporal, or issue contexts. This information is subject to scientific interpretation, evaluation, and judgment. Examples of interpreted products include journal articles, scientific papers, technical reports."[18] The material in question should fall within the category of interpreted products. The guidelines note that the "Objectivity of interpreted products is achieved by using data of known quality or from sources acceptable to the relevant scientific and technical communities and reliable supporting products, applying sound analytical techniques, presenting the information in the proper context, and reviewing the products before dissemination."[19]

The NOAA guidelines define the scope of covered dissemination, including agency-initiated and agency-sponsored distribution, which determines whether NOAA's full IQA obligations attach to each publication at issue.

First, Rosel et al. (2016) is unambiguously an agency-initiated dissemination. It is a NOAA Technical Memorandum bearing NOAA's institutional imprimatur and issued under NOAA's

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[13] OMB, "Guidelines for Ensuring and Maximizing Quality," supra note 2, as supplemented by Office of Management and Budget, Memorandum M-19-15, "Improving Implementation of the Information Quality Act" (Apr. 24, 2019) ("OMB M-19-15"), https://www.whitehouse.gov/wp-content/uploads/2019/04/M-19-15.pdf.
[14] OMB, "Guidelines for Ensuring and Maximizing Quality," supra note 2, 67 Federal Register at 8452-53 ("[S]ome government information may need to meet higher or more specific quality standards than those that would apply to other types of government information, depending on expected use").
[15] NOAA, Information Quality Guidelines, supra note 3, Part II.
[16] *Ibid*.
[17] *Ibid*.
[18] *Ibid*.
[19] *Ibid*.

own publication series. No further analysis is required to establish it is agency information and NOAA's full IQA obligations attach to it.

Second, Rosel et al. (2021) may be properly characterized as agency-sponsored, although it was published in a private journal. The paper lists Dr. Rosel's institutional affiliation as "Southeast Fisheries Science Center, National Marine Fisheries Service, NOAA" and her correspondence address as her official government email address, patricia.rosel@noaa.gov.[20] A federal scientist who lists her government position as her institutional affiliation and her government email as her correspondence address is presumably acting in an official capacity. NOAA's IQA Guidelines provide that agency-sponsored dissemination covers situations "where the Agency has the authority to review and approve the information before release" and is distinct from funding research that a scientist then publishes independently.[21] As part of this RFC we ask your office to confirm whether Dr. Rosel produced the paper in her NMFS capacity, and as such, NOAA had authority to review and approve it before submission, which if confirmed, would make it agency-sponsored within the meaning of NOAA's guidelines regardless of the journal in which it appeared.

Third, and independently of the first two grounds, the IQA applies on two distinct bases arising from subsequent dissemination. That is, each time NOAA has cited the conclusions of Rosel et al. (2016) and Rosel et al. (2021) in official agency action, it has itself disseminated those conclusions, independently triggering the IQA's obligation to ensure that dissemination satisfies its quality, objectivity, and integrity standards. NOAA's IQA Guidelines provide that "subsequent Agency dissemination of such information would require that the information adhere to the Agency's information quality guidelines even if it was initially covered by a disclaimer."[22] In this same regard, the downstream documents, specifically, the August 23, 2021

[20] Rosel et al., "A New Species of Baleen Whale," supra note 8, at 577 (listing institutional affiliation as "Southeast Fisheries Science Center, National Marine Fisheries Service, NOAA, Lafayette, Louisiana" and correspondence address as "National Marine Fisheries Service, NOAA, 646 Cajundome Boulevard, Lafayette, Louisiana 70506, Email: patricia.rosel@noaa.govpatricia.rosel@noaa.gov").

[21] NOAA, Information Quality Guidelines, supra note 3, Part I: Definitions ("Agency sponsored distribution of information to the public refers to situations where the Agency has directed a third party to distribute or release information, or where the Agency has the authority to review and approve the information before release"). This language appears in identical or substantively identical form in every examined version of the NOAA IQG from 2006 through the present. See National Oceanic and Atmospheric Administration, Information Quality Guidelines (Nov. 6, 2006), at 3, https://media.fisheries.noaa.gov/dam-migration/j6-iqa-guidelines.pdf; National Oceanic and Atmospheric Administration, Information Quality Act Overview (July 30, 2010), at 2, https://www.noaa.gov/sites/default/files/legacy/document/2021/Mar/IQA_Overview_7-30-10-FINAL.pdf (confirming substantively identical language as of 2010); National Oceanic and Atmospheric Administration, Information Quality Guidelines (Nov. 2021), at Part I: Definitions (copy on file with author). The definition derives from OMB's government-wide guidelines. See OMB, "Guidelines for Ensuring and Maximizing Quality," supra note 2, 67 Federal Register at 8454.

[22] NOAA, Information Quality Guidelines, supra note 3, Part I: Definitions ("Note that subsequent Agency dissemination of such information would require that the information adhere to the Agency's information quality guidelines even if it was initially covered by a disclaimer"). This language appears in identical or substantively identical form in every examined version of the NOAA IQG from 2006 through the present. See National Oceanic and Atmospheric Administration, Information Quality Guidelines (Nov. 6, 2006), at 3, https://media.fisheries.noaa.gov/dam-migration/j6-iqa-guidelines.pdf; National Oceanic and Atmospheric

direct final rule, the July 24, 2023, proposed critical habitat designation, and the 2025 biological opinion, are themselves agency-disseminated information that must independently satisfy IQA standards, and each fails to do so to the extent it characterizes as scientifically sound conclusions that do not meet those standards. The implications of both grounds are addressed in Section V.C.

It is important to note that we must apply the IQA standards in place at the time of dissemination, either the initial publication or subsequent disseminations. After consulting the internet archive known as the Wayback Machine it appears that the IQA was unchanged on the NOAA website from its promulgation in 2002 through November 18, 2021, which would cover the initial publication of both Rosel papers at issue.[23] As part of this RFC, we ask your office to confirm that this is the case, and apply the correct standard in place at each relevant point in time.

2. Heightened Requirements Applicable to Influential Scientific Information Under the IQA

The IQA further identifies "influential scientific, financial, or statistical information" as information "the agency can reasonably determine will have or does have a clear and substantial impact on important public policies or important private sector decisions."[24] OMB Memorandum M-19-15 sharpened this definition: information is "influential" when "[i]n the context of a policy decision [it] is a principal basis for a decision by a federal decision-maker, that is, if the same decision would be difficult to reach in that information's absence or if the decision would lose its fundamental scientific, financial, or statistical underpinnings" absent the information at issue. M-19-15 directed that each agency should identify specific categories of influential information and establish rigorous processes for making that determination.[25] Additionally, NOAA's own IQA implementing guidelines adopt OMB's definition of influential information.[26]

Influential scientific information is subject to three heightened requirements:

a. Reproducibility. Influential analyses must be disseminated with sufficient description of the underlying data and methods to allow the analysis to be "capable of being substantially reproduced" by qualified third parties.[27] M-19-15 further provides that agencies should

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Administration, Information Quality Guidelines (Nov. 2021), at Part I: Definitions (copy on file with author). See also OMB, "Guidelines for Ensuring and Maximizing Quality," supra note 2, 67 Federal Register at 8454.

[23] National Oceanic and Atmospheric Administration, "Information Quality Guidelines," archived *April 26, 2026,* at the Wayback Machine, https://web.archive.org/web/20160101000000*/https:/www.noaa.gov/organization/information-technology/policy-oversight/information-quality/information-quality-guidelines.

[24] NOAA, Information Quality Guidelines, supra note 3, Part II.

[25] OMB, M-19-15, supra note 13, Implementation Update 1.1, at 3 (directing that agencies should "identify specific types of information the agency produces that are 'influential' and . . . provide a rigorous process for determining whether a given piece of information meets the definition of influential").

[26] NOAA, Information Quality Guidelines, supra note 3, Part I: Definitions ("information the agency reasonably can determine will have or does have a clear and substantial impact on important public policies or private sector decisions").

[27] OMB, "Guidelines for Ensuring and Maximizing Quality," supra note 2, 67 Federal Register at 8460.

"prioritize increased access to the data and analytic frameworks" used to generate such information.[28]

b. Peer Review. Influential scientific information must undergo formal peer review prior to dissemination.[29] When conducting peer review, agencies should ensure reviewers are asked to evaluate the objectivity of the underlying data and the sensitivity of the agency's conclusions to analytic assumptions.[30]

c. Transparency. M-19-15 provides that agencies should ensure that influential information is communicated transparently by including a clear explication of underlying assumptions, accurate contextualization of uncertainties, and a description of the probabilities and make publicly available the data, models, and analytical frameworks underlying influential information, when allowed by applicable law and policy.[31]

3. The Scientific Information at Issue Is Influential under the IQA

Rosel et al. (2016) constitutes influential scientific information under both OMB's government-wide guidelines and NOAA's own implementing guidelines.[32] It served as the primary scientific and analytical framework for the 2019 final rule listing the Gulf of Mexico Bryde's whale as endangered under the ESA. The final listing rule expressly attributes to it the core analytical work underlying the determination: "The status review prepared by the SRT summarizes GOMx Bryde's whale taxonomy, distribution, abundance, and life history; identifies threats affecting the status of the species; and describes existing regulatory mechanisms and conservation efforts that affect the species (Rosel et al. 2016)."[33] The rule further states that the listing determination is based on "information in the status review, information received from the public, and additional materials cited in this final rule," thus specifically identifying the Status Review as a primary input.[34] Seemingly, the listing determination satisfies the M-19-15 standard for influential information as "**a** principal basis for a decision by a federal decision-maker, that is, if the same decision **would be difficult** to reach in that information's absence **or** if the decision would lose its fundamental scientific, financial, or statistical underpinnings absent the information.[35]

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[28] OMB, M-19-15, supra note 13, Implementation Update 3.4, at 8.
[29] OMB, M-19-15, supra note 13, at 4.
[30] Ibid.; Office of Management and Budget, "Final Information Quality Bulletin for Peer Review," *Federal Register* 70, no. 10 (January 14, 2005), https://www.federalregister.gov/documents/2005/01/14/05-769/final-information-quality-bulletin-for-peer-review.
[31] OMB, M-19-15, supra note 13, Implementation Update 3.1, at 7.
[32] NOAA, Information Quality Guidelines, supra note 3, Part I: Definitions (Influential information is "information the agency reasonably can determine will have or does have a clear and substantial impact on important public policies or private sector decisions"). See also OMB, "Guidelines for Ensuring and Maximizing Quality," supra note 2, 67 Federal Register at 8455 (same).
[33] "Endangered and Threatened Wildlife and Plants; Endangered Status of the Gulf of Mexico Bryde's Whale," 84 Federal Register 15446, 15446 (April 15, 2019), https://www.govinfo.gov/content/pkg/FR-2019-04-15/pdf/2019-06917.pdf.
[34] Ibid.
[35] OMB, M-19-15, supra note 13, at 3 (defining 'influential' information (emphasis added)). See also OMB, "Guidelines for Ensuring and Maximizing Quality," supra note 2, 67 Federal Register at 8455 (defining influential

Rosel et al. (2021) independently satisfies the same standard. It is the direct scientific foundation for the reclassification of the Gulf of Mexico Bryde's whale from a subspecies of *Balaenoptera edeni* to a full species, *Balaenoptera ricei* (Rice's whale),[36] a determination that triggered a proposed designation of approximately 28,270 square miles of Gulf of Mexico critical habitat,[37] subjected federal actions that may affect the species or its designated critical habitat to ESA Section 7 consultation requirements, and produced the 2025 programmatic biological opinion finding that Gulf oil and gas vessel operations jeopardize the species' continued existence.[38] The reclassification would be difficult to reach in the absence of Rosel et al. (2021) as it is expressly predicated on that paper and each downstream regulatory consequence flows from it. The integrity of that regulatory chain depends on the integrity of the information at each foundational step.

B. Executive Order 14303 – "Restoring Gold Standard Science"

In addition to the foregoing obligations under the IQA, Section 4 of the EO 14303 also imposes affirmative and ongoing obligations on NOAA employees in their use of scientific information in agency decision-making, including instruction about how agencies are to: apply a weight-of-scientific-evidence approach,[39] transparently acknowledge and document uncertainties,[40] avoid highly unlikely or overly precautionary assumptions and scenarios, which should only be relied upon in agency decision-making where required by law or otherwise pertinent to the agency's action[41] and ensure that scientific activities are conducted without conflicts of interest.[42]

Moreover, until the issuance of updated agency scientific integrity policies, EO 14303 Section 5(a)(i) establishes as the interim scientific integrity standard the policies that existed within the executive branch on January 19, 2021 (barring a conflict with the EO), which for NOAA means NAO 202-735D applies until NOAA issues updated scientific integrity policies.[43] Accordingly, the foregoing obligations do not retroactively govern the original publication of Rosel et al. (2016) and Rosel et al. (2021), which were completed before January 19, 2021. The applicable standards for the original production of those publications are the IQA and the NOAA scientific integrity policies then in force. The EO's Section 4 requirements apply, however, to NOAA's

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information as that which "the agency can reasonably determine will have or does have a clear and substantial impact on important public policies or important private sector decisions").

[36] "Endangered and Threatened Wildlife and Plants; Technical Corrections for the Bryde's Whale (Gulf of Mexico Subspecies)," 86 Federal Register 47022 (Aug. 23, 2021), https://www.govinfo.gov/content/pkg/FR-2021-08-23/pdf/2021-17985.pdf.

[37] See "Endangered and Threatened Species; Designation of Critical Habitat for the Rice's Whale," 88 Federal Register 47453 (July 24, 2023) (proposed rule), https://www.federalregister.gov/documents/2023/07/24/2023-15187/endangered-and-threatened-species-designation-of-critical-habitat-for-the-rices-whale.

[38] National Marine Fisheries Service, Biological and Conference Opinion on the Bureau of Ocean Energy Management and Bureau of Safety and Environmental Enforcement's Oil and Gas Program in Federal Waters of the Gulf of Mexico (May 20, 2025), https://repository.library.noaa.gov/view/noaa/71211.

[39] Exec. Order No. 14303, supra note 4, § 4(f), 90 Federal Register at 22603.

[40] Ibid. § 4(c).

[41] Ibid. § 4(e). Notably, the EO cited an instance where NOAA had used a "worst case scenario" projection of a whale population that it believed was "very likely" wrong. See ibid § 1.

[42] Ibid. § 3(a)(ix).

[43] National Oceanic and Atmospheric Administration, NAO 202-735D: Scientific Integrity, § 7.03 (eff. Dec. 7, 2011) (copy on file with author).

current and ongoing use of those publications, including their use in the pending critical habitat designation,[44] Section 7 consultations predicated on the species-level listing,[45] and to NOAA's conduct in further agency action that relies upon them.

C. Department of Commerce Gold Standard Science Implementation Guidelines

The Department of Commerce submitted its Gold Standard Science Implementation Report to the Office of Science and Technology Policy in August 2025 pursuant to EO 14303.[46] Commerce's implementation framework commits NOAA to ensuring that its scientific activities satisfy all nine EO tenets, specifically including the requirements that science be conducted "without conflicts of interest," and to updating its Scientific Integrity Program to incorporate these principles.[47] That commitment, although ongoing, is directly relevant here. The framework requires NOAA to assess whether its existing scientific integrity procedures satisfy the Gold Standard Science tenets going forward. That assessment necessarily includes examining whether NOAA's current reliance on both publications as the evidentiary foundation for pending regulatory actions is consistent with Gold Standard Science requirements, which in turn requires NOAA to evaluate whether the pre-publication conflict-of-interest review process that governed Rosel et al. (2016) was followed, and whether any equivalent review obligation applied to Rosel et al. (2021) and if so whether it was followed.[48] As discussed in Section IV.C below, Rosel et al. (2016) and Rosel et al. (2021),(originally published January 10, 2021), were governed by NAO 202-735D §7.03 (eff. December 7, 2011). Whether the required review was conducted for Rosel et al. (2016), and whether any equivalent obligation applied to Rosel et al. (2021) and was satisfied, are among the questions this RFC asks NOAA to examine. Unresolved process deficiencies in the underlying science bear directly on whether continued reliance on that science satisfies the Gold Standard Science COI tenet.

III. IQA Concerns About the Status Review, Rosel et al. (2016), and the Species Description Paper, Rosel et al. (2021)

A. Davis (2026) and the IQA Objectivity and Transparency Standards

The reclassification of the Gulf of Mexico whale population from a subspecies (Bryde's whale) to a full species (Rice's whale), as described in Section I.A above, rests on two independent lines of evidence, genetic and morphological. This RFC raises questions under the IQA's objectivity, transparency, and reproducibility standards regarding whether the limitations and uncertainties of that evidence were adequately characterized and disclosed in the publications and the downstream regulatory documents that relied on them. Under OMB's government-wide guidelines implementing the IQA, influential scientific information must be presented in an accurate, clear, complete, and unbiased manner, including accurate contextualization of

[44] "Endangered and Threatened Species; Designation of Critical Habitat for the Rice's Whale," supra note 37.
[45] Endangered Species Act of 1973, 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a).
[46] U.S. Department of Commerce, Report to OSTP on Gold Standard Science Implementation, supra note 5.
[47] Ibid. at 20.
[48] NOAA, NAO 202-735D: Scientific Integrity, supra note 43, § 7.03.

uncertainties and a clear explication of underlying assumptions.[49] Each time NOAA cited Rosel et al. (2021) in official regulatory action it independently disseminated those conclusions, and that subsequent dissemination must itself satisfy IQA quality and objectivity standards, including the requirement to accurately characterize the limitations and uncertainties of the underlying science.[50]

Davis (2026) [51] appears to be the first paper published in a peer-reviewed journal to directly address whether the specific evidence underlying the Rice's whale species determination meets the applicable evidentiary standard, in a scientific context where NOAA itself acknowledges that the taxonomy of the Bryde's whale complex remains an area of ongoing expert discussion.[52] Thus, Davis (2026) is directly relevant to this RFC on two independent grounds set out below. While Rosel et al. (2016) noted that it went through an independent peer review process, there is no mention of peer review in the 2021 publication.[53] Furthermore, the 2021 paper lacks a required disclaimer: "For influential scientific information that does not have the imprimatur of the Federal government, scientists employed by the Federal government are required to include in their information product a clear disclaimer that 'the findings and conclusions in this report are those of the author(s) and do not necessarily represent the views of the funding agency."[54] As part of this RFC, we ask your office to validate the adequacy of the 2016 peer review process, and investigate whether any peer review was utilized in preparing the 2021 article.

Dr. R.W. Davis is a Regents Professor of Marine Biology at Texas A&M University at Galveston[55] who personally conducted the U.S. Department of the Interior surveys in the 1990s that rediscovered the Gulf of Mexico population now known as Rice's whale,[56] and who has

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[49] OMB, "Guidelines for Ensuring and Maximizing Quality," supra note 2, 67 Federal Register at 8459 (requiring that influential scientific information be presented in an accurate, clear, complete, and unbiased manner); OMB, M-19-15, supra note 13, Implementation Update 3.1, at 7-8. (requiring accurate contextualization of uncertainties and a clear explication of underlying assumptions).

[50] NOAA Fisheries, Stock Assessment Report: Gulf of Mexico Bryde's Whale (Balaenoptera edeni), Atlantic and Gulf of Mexico Marine Mammals Stock Assessments - 2020, at 160 ("the taxonomy and number of species and/or subspecies of Bryde's whales in the world is currently a topic of debate"), https://media.fisheries.noaa.gov/2021-07/f2020_AtlGmexSARs_GMexBrydes.pdf.
NOAA, Information Quality Guidelines, supra note 3, Part I: Definitions ("subsequent Agency dissemination of such information would require that the information adhere to the Agency's information quality guidelines even if it was initially covered by a disclaimer"); see also supra note 18.

[51] R.W. Davis, "Rice's Whale: Considerations for Identifying New Cetacean Species," Marine Mammal Science 42, no. 1 (2026): e70112, https://doi.org/10.1111/mms.70112.

[52] See e.g. NOAA Fisheries, Atlantic and Gulf of Mexico Marine Mammals Stock Assessments - 2020, NOAA Technical Memorandum NMFS-OPR-86, at 160 (Gulf of Mexico Bryde's Whale stock assessment) ("the taxonomy and number of species and/or subspecies of Bryde's whales in the world is currently a topic of debate"), https://media.fisheries.noaa.gov/2021-07/f2020_AtlGmexSARs_GMexBrydes.pdf.

[53] Rosel et al., "Status Review," supra note 6 at 1; Rosel et al., "A New Species of Baleen Whale," supra note 8.

[54] Office of Management and Budget, "Final Information Quality Bulletin."

[55] Texas A&M University at Galveston, Department of Marine Biology, Faculty Directory, https://marine.tamu.edu/academics/marine-biology/directory/randall-davis.html.

[56] R.W. Davis, W.E. Evans, and B. Wursig, eds., Cetaceans, Sea Turtles and Seabirds in the Northern Gulf of Mexico: Distribution, Abundance and Habitat Associations, Volume II: Technical Report, USGS/BRD/CR-1999-0006, OCS Study MMS 2000-003 (Galveston, TX: Texas A&M University at Galveston and National Marine Fisheries Service, January 2000), https://espis.boem.gov/final%20reports/3153.pdf. See also Davis, "Rice's Whale," supra note 46, at 2 (noting the population's rediscovery "during surveys of marine mammal, seabird, and sea turtle

published peer-reviewed research on cetacean habitat and distribution in the northern Gulf of Mexico spanning more than two decades.[57] Davis (2026) is therefore not the work of an outside commentator on this population but reflects firsthand scientific experience with it predating Rosel et al. (2021) by more than two decades. The three scientists whose conversations informed his conclusions bring directly relevant expertise of their own. R.R. Reeves co-edited the 2004 NOAA cetacean taxonomy workshop report that established the two-independent-lines-of-evidence standard applicable to cetacean species determinations, and Davis (2026) acknowledges that his analysis benefited from conversations with Reeves.[58] B. Würsig co-edited the 1999 Gulf of Mexico cetacean survey report with Davis and has direct personal familiarity with this population going back to its rediscovery.[59] T. Jefferson has conducted cetacean distribution and abundance research in the Gulf of Mexico.[60] Davis (2026) therefore does not represent a lone dissenting voice but draws on the scientific expertise of researchers with collective decades of direct experience with this specific population and with the evidentiary standards applicable to cetacean species determinations.

Davis (2026) raises a fundamental question about the genetic evidence underlying the species determination: does the genetic homogeneity of the Gulf of Mexico population reflect deep evolutionary isolation justifying species status, or does it instead reflect a population bottleneck, that is, a severe reduction in population size that can rapidly produce genetic patterns mimicking those of a distinct species through random chance rather than long evolutionary separation? Davis notes that Rice's whales exhibit extremely low genetic diversity, with only two haplotypes in the mitochondrial control region and no variation detected in two other commonly used genetic markers, a pattern consistent with a population severely reduced by commercial whaling in the Gulf of Mexico during the 18th and 19th centuries rather than one that has been independently evolving for millions of years.[61] He draws on well-documented examples, including North Atlantic right whales and northern elephant seals, to show how severe population reductions can rapidly produce genetic profiles that superficially resemble those of

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distribution and abundance, sponsored by the U.S. Department of the Interior, to support environmental assessments before oil and gas development on the continental slope (Davis et al. 1999)").

[57] See e.g., R.W. Davis et al., "Cetacean Habitat in the Northern Oceanic Gulf of Mexico," Deep-Sea Research Part I 49, no. 1 (2002): 121-142, https://doi.org/10.1016/S0967-0637(01)00035-8; R.W. Davis et al., "Physical Habitat of Cetaceans Along the Continental Slope in the North-Central and Western Gulf of Mexico," Marine Mammal Science 14, no. 3 (1998): 490-507, https://doi.org/10.1111/j.1748-7692.1998.tb00738.x.

[58] R.R. Reeves, W.F. Perrin, B.L. Taylor, C.S. Baker, and S.L. Mesnick, eds., Report of the Workshop on Shortcomings of Cetacean Taxonomy in Relation to Needs of Conservation and Management, April 30-May 2, 2004, La Jolla, California, NOAA Technical Memorandum NMFS-OPR-28 (July 2004), at 4 ("the working group had effectively rejected all formal species concepts that do not require at least two independent lines of evidence"), https://repository.library.noaa.gov/view/noaa/3474/noaa_3474_DS1.pdf; Davis, "Rice's Whale," supra note 46, at 9 ("This manuscript benefited from conversations with R. Reeves, B. Würsig, and T. Jefferson").

[59] Davis, Evans, and Wursig, eds., Cetaceans, Sea Turtles and Seabirds in the Northern Gulf of Mexico, supra note 56.

[60] T.A. Jefferson and A.J. Schiro, "Distribution of Cetaceans in the Offshore Gulf of Mexico," Mammal Review 27, no. 1 (1997): 27-50.

[61] R.R. Reeves, J.N. Lund, T.D. Smith, and E.A. Josephson, "Insights From Whaling Logbooks on Whales, Dolphins, and Whaling in the Gulf of Mexico," Gulf of Mexico Science 29, no. 1 (2011): 41-67, https://aquila.usm.edu/goms/vol29/iss1/4 (documenting commercial whaling encounters with Bryde's-like whales in the Gulf of Mexico during the 18th and 19th centuries).

distinct species without reflecting genuine evolutionary divergence.[62] If the bottleneck interpretation is correct, the Gulf of Mexico population may represent a regional subspecies or isolated variety within the Bryde's whale complex rather than a true species, and the species determination could be significantly weakened.

Three additional points about the paper bear emphasis. First, Davis (2026) is a substantive article published in Marine Mammal Science, a peer-reviewed journal, eleven pages in length and citing 56 sources.[63] Second, the paper's conclusions were informed by conversations with R. Reeves, B. Würsig, and T. Jefferson.[64] Third, the paper is based on published books and articles, making it a direct synthesis of the evidence base that the IQA's objectivity and transparency standards require NOAA to address.[65]

That Davis (2026) takes the form of an opinion article rather than a primary research paper presenting new data does not diminish its relevance to this RFC. The paper underwent substantive editorial review prior to acceptance, as the dates of receipt (May 30, 2025), revision (December 6, 2025), and acceptance (December 10, 2025) demonstrate.[66] Moreover, the IQA's objectivity and transparency standards do not require that dissenting expert opinion take the form of a primary research article. They require that NOAA accurately characterize the limitations and uncertainties of the influential scientific information it disseminates, which includes acknowledging significant expert discussion about the adequacy of the underlying evidence. A synthesis by a scientist with firsthand experience with this population, informed by three prominent cetacean biologists, and published in the same journal as the species-determining paper constitutes precisely that kind of discussion. Moreover, while Davis (2026) draws substantially on the same published literature that formed the evidentiary foundation for the species determination, including Rosel et al. (2021) itself, it also cites post-determination studies, most significantly Lin et al. (2025), a chromosome-level whole-genome analysis published in 2025, whose findings Davis cites in support of his argument that comprehensive nuclear genomic analyses are needed before the species designation can be considered fully corroborated. These post-determination studies bear on the adequacy of the evidentiary foundation for the species determination and are independently relevant to NOAA's Section 5(c) retrospective review obligation under EO 14303.[67]

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[62] Davis, "Rice's Whale," supra note 51, at 3.
[63] Davis, "Rice's Whale," supra note 51, at 1 (received May 30, 2025; revised December 6, 2025; accepted December 10, 2025; citing 56 references).
[64] Davis, "Rice's Whale," supra note 51, at 9 ("This manuscript benefited from conversations with R. Reeves, B. Wursig, and T. Jefferson").
[65] Davis, "Rice's Whale," supra note 51, at 9 ("This manuscript is based on published books and articles").
[66] Davis, "Rice's Whale," supra note 51, at 1 (received May 30, 2025; revised December 6, 2025; accepted December 10, 2025; citing 56 references).
[67] Y.-T. Lin et al., "Chromosome-Level Genome Assembly of Eden's Whale Clarifies the Taxonomy and Speciation of the Bryde's Whale Complex," Molecular Biology and Evolution 42, no. 10 (2025): msaf234, https://doi.org/10.1093/molbev/msaf234 (discussed in Davis, "Rice's Whale," supra note 46, at 7, reporting that mitochondrial divergence between Eden's and Rice's whales falls within intraspecific ranges for other Mysticeti); M.S. Soldevilla et al., "Acoustic Localization, Validation, and Characterization of Rice's Whale Calls," Journal of the Acoustical Society of America 151, no. 6 (2022): 4264-4278, https://doi.org/10.1121/10.0011677; Exec. Order No. 14303, supra note 4, § 5(c), 90 Federal Register at 22604.

Davis (2026) is relevant to this RFC on two independent grounds. First, on the scientific merits, Davis indicates that the current evidentiary basis does not fully support the species determination, stating expressly that "at present, the weight of evidence rests primarily on mitochondrial data and subtle morphological traits derived from limited samples" and that "a conservative interpretation is warranted, recognizing Rice's whale as a regional subspecies or isolated variety within the Bryde's whale complex" until comprehensive nuclear genomic analyses confirm sustained lineage independence.[68] This is not a tentative critique but an affirmative conclusion published in the same peer-reviewed journal that published the Rosel et al. (2021),[69] and whose Taxonomy Committee NMFS relied upon as the explicit regulatory trigger for the reclassification.[70] The conclusion directly implicates the IQA's core quality and objectivity standards and OMB's implementing guidelines, which require that influential scientific information be presented in an accurate, clear, complete, and unbiased manner, including accurate contextualization of uncertainties and a clear explication of underlying assumptions.[71]

Davis's concern about the adequacy of nuclear genomic confirmation is informed by Lin et al. (2025), a chromosome-level whole-genome study of Eden's whale. Davis reports that the mitochondrial divergence between Eden's and Rice's whales (1.81%) is smaller than that between Eden's and Bryde's whales (2.94%) and falls within intraspecific ranges for other Mysticeti, and from that concludes that mitochondrial DNA evidence alone is insufficient to demonstrate species-level separation.[72] Second, on the process dimension, Davis (2026)'s explicit COI declaration stating "The author declares no conflicts of interest"[73] highlights the absence of any comparable disclosure in either Rosel et al. (2016) or Rosel et al. (2021), constituting probative evidence that the required disclosure was omitted rather than reflecting standard journal practice.

B. IQA Concerns About the Morphological Limitations of Rosel et al. (2021)

The 2004 NOAA Workshop on Shortcomings of Cetacean Taxonomy explained that while a single line of evidence, such as genetic data or morphological data alone, is sufficient to delimit cetacean subspecies, two independent lines of evidence are necessary for delimiting species.[74] Rosel et al. (2021) formally satisfied this threshold by combining the existing genetic evidence with new morphological evidence derived from the first morphological examination of an intact

[68] Davis, "Rice's Whale," supra note 51, at 6 ("At present, the weight of evidence rests primarily on mitochondrial data and subtle morphological traits derived from limited samples. Until comprehensive nuclear genomic analyses confirm sustained lineage independence, a conservative interpretation is warranted, recognizing Rice's whale as a regional subspecies or isolated variety within the Bryde's whale complex").
[69] Davis, "Rice's Whale," supra note 51; Rosel et al., "A New Species of Baleen Whale," supra note 8, at 577-610.
[70] "Technical Corrections for the Bryde's Whale," supra note 36, 86 Federal Register at 47023.
[71] OMB, "Guidelines for Ensuring and Maximizing Quality," supra note 2, 67 Federal Register at 8459 (requiring that influential scientific information be presented in an accurate, clear, complete, and unbiased manner); OMB, M-19-15, supra note 13, Implementation Update 3.1, at 7-8 (requiring accurate contextualization of uncertainties and a clear explication of underlying assumptions).
[72] Davis, "Rice's Whale," supra note 51, at 7 (concluding that mitochondrial DNA evidence alone is insufficient to demonstrate species-level separation for Rice's whale, based on analysis of available genetic data including Lin et al. (2025)).
[73] Davis, "Rice's Whale," supra note 51, at 9 ("The author declares no conflicts of interest").
[74] R.R. Reeves et al., eds., Report of the Workshop on Shortcomings of Cetacean Taxonomy in Relation to Needs of Conservation and Management, supra note 58, at 4.

specimen from the Gulf of Mexico, the single 2019 holotype.[75] The SMM Taxonomy Committee evaluated the paper and agreed with its findings, and NMFS cited that acceptance as the basis for the direct final rule reclassifying the listed entity from subspecies to full species.[76] The questions addressed in this section bear directly on whether the morphological line of evidence in Rosel et al. (2021) provides the quality of independent corroboration that the two-line standard contemplates, specifically whether morphological evidence derived from a single complete adult skull whose preparation history is only partially disclosed in the paper satisfies the objectivity and transparency standards that OMB's guidelines implementing the IQA impose on influential scientific information.

Rosel et al. (2021) crossed the two-independent-lines-of-evidence threshold required for full species designation by combining existing genetic data with morphological evidence derived primarily from a single skull of an emaciated adult male (holotype USNM 594665) that stranded on January 29, 2019, near Flamingo, Florida Bay, at the outer edge of Everglades National Park.[77] The morphological diagnosis rests largely on subtle features of the nasal bones: their tapering and lateral curvature at the posterior end, the broad gap between them that does not narrow posteriorly, and the anterior protrusion of the frontal bones between the posterior end of the nasals.[78] All of these diagnostic features are located in the single whale skull whose preparation history is only partially disclosed in the paper. To corroborate that the diagnostic features were not unique to one individual, the paper compared the holotype to a second specimen, USNM 572922, a subadult male that stranded in North Carolina in 2003.[79] The paper does not address whether the relevant skull features are fully developed and stable in subadult specimens of this taxon. PPT asks NOAA to confirm whether ontogenetic variation in these skull features has been assessed and, if so, where that assessment is documented.

Rosel et al. (2021) does disclose, however, that the specimen was thin and that a piece of sharp plastic lodged in its digestive system was the likely cause of death.[80] The paper also briefly discloses, in its Methods section, that following the stranding the carcass was buried at Fort De Soto Park, Florida, and that "in October 2019, after being moved from Florida to North Carolina for further cleaning, the entire skeleton was exhumed, cleaned further, and deposited in the U.S. Museum of Natural History at the Smithsonian Institution."[81] What the paper does not disclose is the full nature or duration of that preparation process discussed above. A reader of the morphological diagnosis would not have a full basis from the paper itself to assess whether the diagnostic nasal bone configurations, which are the features that form the primary morphological basis of the species determination, might have been affected by four months of burial, the condition of the remains at exhumation, the composting process, or the handling the specimen

[75] Rosel et al., "A New Species of Baleen Whale," supra note 8, at 577 ("Here, we provide the first morphological examination of a complete skull from these whales . . ."); see also id. at 594–96 (morphological results).
[76] "Technical Corrections for the Bryde's Whale," supra note 36, 86 Federal Register at 47023 ("The Society for Marine Mammalogy's Taxonomy Committee evaluated the Rosel et al. (2021) paper and agreed with the findings. As a result, the Committee now recognizes the Bryde's whales in the Gulf of Mexico as a different species, Rice's whale, Balaenoptera ricei").
[77] Rosel et al., "A New Species of Baleen Whale," supra note 8, at 582–83 (published online January 10, 2021).
[78] Ibid. at 602-03.
[79] Ibid. at 583, 589.
[80] Ibid. at 598-99.
[81] Ibid. at 583, 604.

underwent during more than 1,100 miles of travel, before examination presumably at the Smithsonian Institution.

The significance of this omission is sharpened by what the paper does say about burial and skeletal integrity elsewhere. The paper's Additional Material section describes another potential candidate holotype represented by the skeleton of a female whale that stranded in Tampa Bay in 2009 and was buried at Fort De Soto Park, and explains that it could not serve as the type specimen because the skull "had been crushed during burial" and "most of the specimen lay in water for the 9 years it was buried."[82] The authors therefore acknowledged, in the same paper, that burial conditions can physically damage the skeletal features relevant to morphological diagnosis. Having made that disclosure about the rejected specimen, the paper does not divulge the full comparable information about the preparation history of the specimen it actually used, which leaves a reader unable to independently assess whether the conditions of burial, decomposition, composting and travel might have affected the diagnostic nasal bone features of the holotype, the only complete adult skull on which the morphological basis of the species determination rests.

Such an omission would seemingly give rise to two related questions under the IQA and OMB's implementing guidelines. First, it is a direct reproducibility and transparency concern: without disclosure of the preparation history, a reader cannot independently evaluate the reliability of the primary morphological evidence, as the objectivity and reproducibility standards applicable to influential scientific information require.

Second, whether the holotype (USNM 594665), a single nutritionally compromised adult male specimen whose preparation history is only partially disclosed in the paper and whose diagnostic features consist of subtle nasal bone configurations, can support a species-level morphological determination, particularly one of this regulatory magnitude, is itself a question about whether the paper satisfies OMB's guidelines' requirement that influential scientific information rest on sound statistical and research methods and be presented in an accurate, clear, complete, and unbiased manner.

On morphology, Davis notes that the osteological distinctions identified in Rosel et al. (2021) are subtle and documented from only two skulls, i.e., the holotype adult male (USNM 594665) and a subadult male (USNM 572922) that stranded in North Carolina in 2003, and concludes that "reliable diagnosis presently requires standardized morphometric analysis; with this sample size, effect sizes and statistical significance cannot yet be assessed."[83] Davis further observes that no suite of gross external features visible on a living whale has been demonstrated to distinguish Rice's whale with statistical confidence, making skull morphology the primary basis of morphological distinction.[84] Importantly, Davis does not conclude that the morphological evidence is wrong or that it affirmatively fails to support a species determination. His more limited point is that the current sample size is insufficient to subject the morphological distinctions to the statistical validation that reliable diagnosis would require, and that further

[82] Ibid. at 600-01.
[83] Davis, "Rice's Whale," supra note 51, at 4 (analyzing Rosel et al. (2021); emphasis added).
[84] Davis, "Rice's Whale," supra note 51, at 4. ("[N]o suite of gross external features has yet been demonstrated to distinguish Rice's whale with statistical confidence. The most diagnostic traits are found in the skull, particularly the nasal bones and surrounding anatomy (Rosel et al. 2021) (some citations omitted)).

work with larger sample sizes and standardized morphometric analysis is needed before the morphological evidence can be considered fully corroborated.

Furthermore, no additional complete adult skull has been reported in the publicly available literature or official agency documents since the publication of Rosel et al. (2021). As of the date of this filing the morphological diagnosis continues to rest on a single complete adult skull, the holotype USNM 594665.85 The only other specimen used for morphological comparison, USNM 572922, was a subadult male, and the paper does not address whether its developmental stage affects the reliability of the comparisons drawn from it.86 That the diagnostic features defining Rice's whale as a distinct species remain documented in only one complete adult skull more than four years after the species determination raises a question this RFC asks NOAA to examine: whether the morphological line of evidence, standing alone, satisfies the objectivity and reproducibility standards the IQA requires of influential scientific information relied upon in ongoing regulatory action.

This does not mean the species determination rested on anything other than the best *available* scientific evidence. However, the IQA concern is distinct: it is not whether NOAA used the best available science, but whether the downstream Federal Register rulemaking transparently characterized the limitations and uncertainties of that evidence, as the IQA's objectivity and transparency standards require of influential scientific information. The direct final rule reclassifying Rice's whale as a full species acknowledges that the morphological evidence derives from "a stranding of an individual in 2019" but characterizes the reclassification as reflecting "the best available scientific information" apparently without fully discussing the implications of the condition of that specimen, the preparation history documented in contemporaneous accounts, or the limitations that a single specimen imposes on the reliability of the morphological diagnosis.[87]

The decision to list Rice's Whale as a distinct endangered species (primarily driven by the work of a single scientist utilizing a single sample) has profound policy implications and economic costs for our nation. It is a decision that should not be made lightly, and not without an adequate factual basis upon which to make such a weighty determination. The potential impact on the vital oil and gas industry in the Gulf was so devastating that the Endangered Species Committee, colloquially known as the "God Squad," felt it necessary to intervene and exempt oil and gas drilling in the Gulf. With our country at war, and energy independence a genuine national security concern now more than ever, the threshold for such potentially industry-killing decisions should be extremely high. As noted previously, OMB guidance requires that information destined for a higher-impact purpose must be held to higher standards of quality.[88] A single specimen, pushed through a procedurally deficient review process, should not be determinative.

[85] Rosel et al., "A New Species of Baleen Whale," supra note 8, at 600 (describing three additional specimens considered but unavailable for comparison).
[86] Rosel et al., "A New Species of Baleen Whale," supra note 8, at 583 and 600.
[87] "Technical Corrections for the Bryde's Whale," supra note 36, 86 Federal Register at 47024.
[88] Note 16, Supra.

IV. Conflict of Interest Concerns Implicating IQA Standards

The concerns identified in this Section are raised not as standalone scientific integrity complaints, which would be addressed typically through NOAA's internal scientific integrity mechanisms, but as evidence that the publications at issue do not satisfy the IQA's objectivity standard. Under OMB's government-wide guidelines, the objectivity standard is process-based, not intent-based: it does not require proof of actual bias but asks whether the process through which influential scientific information was produced and validated provided genuine independence.[89] The specific question this Section asks NOAA to examine is whether the concurrent institutional roles held by Dr. Rosel as documented below provided that independence.

Separately, EO 14303 Section 5(c) independently requires NOAA to review the 2021 direct final species determination rule and 2023 proposed critical habitat designation and confirm their alignment with the requirement that science informing agency decisions be conducted without conflicts of interest to maintain objectivity.[90]

A. The Overlapping Roles

During the period relevant to this RFC, Dr. Rosel held three overlapping institutional roles that, taken together, concentrated influence over the production, publication, and validation of the scientific determinations at issue in a single individual.

First, Dr. Rosel was the lead NOAA federal scientist and lead author of both Rosel et al. (2016) and Rosel et al. (2021), presumably produced in her NMFS capacity at the Southeast Fisheries Science Center. The Status Review evaluated and adopted as a primary evidentiary foundation the genetic evidence developed in Rosel and Wilcox (2014), Dr. Rosel's own prior work.[91]

Second, Dr. Rosel served as Deputy Editor of Marine Mammal Science, the journal in which Rosel et al. (2021) was published. The Board of Editors is responsible for determining content by evaluating feedback from selected reviewers and making decisions on all manuscripts submitted to the journal.[92]

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[89] OMB, "Guidelines for Ensuring and Maximizing Quality," supra note 2, 67 Federal Register at 8459 ("'Objectivity' involves two distinct elements, presentation and substance. . . . As a matter of substance, 'objectivity' includes whether disseminated information is accurate, reliable, and unbiased").

[90] Exec. Order No. 14303, supra note 4, §5(c), 90 Federal Register at 22604 ("Agencies, unless prohibited by law, shall review agency actions taken between January 20, 2021, and January 20, 2025, including regulations, guidance documents, policies, and scientific evaluations and take all appropriate steps, consistent with law, to ensure alignment with the policies and requirements of this order."). The August 23, 2021 direct final rule reclassifying the species (86 Fed. Reg. 47022) and the July 24, 2023 proposed critical habitat designation (88 Fed. Reg. 47453) fall within this review window.

[91] P.E. Rosel and L.A. Wilcox, "Genetic Evidence Reveals a Unique Lineage of Bryde's Whales in the Northern Gulf of Mexico," Endangered Species Research 25, no. 1 (2014): 19-34, https://doi.org/10.3354/esr00606, at 19.

[92] Society for Marine Mammalogy, Committees, https://marinemammalscience.org/about-us/committees/

Third, Dr. Rosel served as Chair of the SMM Committee on Taxonomy beginning in September 2016.[93] By operation of the SMM Constitution, the chairpersons of all Standing Committees are automatically voting members of the SMM Board of Governors,[94] which the Constitution identifies as the policy-making body of the Society.[95] The Taxonomy Committee chairship therefore simultaneously made Dr. Rosel an officer of the SMM Taxonomy Committee and a voting member of the SMM's governing board. NOAA's scientific integrity policy called for employees to consult before accepting such appointments on behalf of NOAA, and no documentation of any such consultation has been located in the publicly available record.[96] The Committee formally evaluated and accepted the conclusions of Rosel et al. (2021), and NMFS cited that acceptance as the regulatory basis for reclassifying Rice's whale as a full species by direct final rule.[97] The SMM's own website lists her in both roles with her NOAA institutional affiliation, identifying her as "Patricia Rosel (NOAA Fisheries, USA)," which is evidence that she held these positions on behalf of NOAA.[98]

B. Why the Overlapping Roles Raise IQA Objectivity Concerns

A validation process concentrated in overlapping roles in a single individual raises objectivity questions under the IQA's process-based standard regardless of whether actual bias occurred.[99] In this case the same individual was the lead author of the paper being validated, a senior editor

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[93] Thomas A. Jefferson and Patricia E. Rosel, "Latest SMM Taxonomy Committee List of Marine Mammal Species Includes Several Species-level Changes," IUCN SSC Cetacean Specialist Group (September 5, 2016) ("Thanks to Bill Perrin for his many years of service as Taxonomy Committee chair. Patty Rosel will be taking over from Bill as the new chair"), https://iucn-csg.org/latest-smm-taxonomy-committee-list-of-marine-mammal-species-includes-several-species-level-changes/. The Status Review (Rosel et al. (2016)) was finalized in December 2016, approximately three months after the chairship transition. The final listing rule states that "at the request of the SRT, the SMM Committee provided their scientific opinion that it is highly likely that the Bryde's whales in the Gulf of Mexico are at least an undescribed subspecies of what is currently recognized as B. edeni." "Endangered Status of the Gulf of Mexico Bryde's Whale," supra note 28, at 15450. The same solicitation and vote are described in the proposed rule. "Endangered and Threatened Wildlife and Plants; Notice of 12-Month Finding on a Petition to List the Gulf of Mexico Bryde's Whale," 81 Federal Register 88639, 88641 (December 8, 2016), https://www.govinfo.gov/content/pkg/FR-2016-12-08/pdf/2016-29412.pdf.

[94] Society for Marine Mammalogy, Constitution of the Society for Marine Mammalogy, Art. VIII ("The voting members of the Board of Governors consist of the elected officers (including the Senior and Junior Student Member-at-Large) and the chairpersons of the Standing Committees"; identifying the Board of Governors as "the policy-making body of the Society"), https://marinemammalscience.org/about-us/constitution/.

[95] Ibid. Arts. VII and VIII (listing the Taxonomy Committee as a standing committee of the SMM and providing that its chairperson is automatically a voting member of the Board of Governors).

[96] NOAA, NAO 202-735D: Scientific Integrity, supra note 48, §4.08 (eff. December 7, 2011) (copy on file with author) ("Service in an official capacity on a governing board or as an officer of an outside organization is subject to restrictions under ethics laws; employees should consult an ethics official before accepting an appointment on behalf of NOAA to such a position"). Note that NAO 202-735D-2 (eff. January 19, 2021), https://www.noaa.gov/organization/administration/nao-202-735d-2-scientific-integrity, which superseded NAO 202-735D, softened this requirement to consultation with a supervisor rather than an ethics official. See NAO 202-735D-2 §5.06 ("Employees should consult with their supervisor before accepting an appointment on behalf of NOAA to such a position"). Under either version a consultation obligation existed that the publicly available record does not confirm was satisfied.

[97] "Technical Corrections for the Bryde's Whale," supra note 36, 86 Federal Register at 47023.

[98] Supra note 92.

[99] Supra note 89.

of the journal that published it, and the chair of the professional committee whose acceptance NMFS treated as the regulatory trigger for the species reclassification. The IQA's objectivity standard requires that the process through which influential scientific information is produced and validated be genuinely independent. A process that does not structurally separate those functions does not satisfy that requirement regardless of the quality of the underlying science.

Two specific process obligations arose from these concurrent roles and the publicly available record does not confirm they were satisfied. First, NOAA's scientific integrity policy required supervisors to confirm there were no apparent, actual, or potential conflicts of interest before approving an FRC for publication, under both the policy governing the original publications and the policy governing the downstream regulatory actions.[100] No documentation that this review was conducted has been located in the publicly available record. Second, Wiley's publishing standards applicable at the time of submission and publication of Rosel et al. (2021)[101] required editors to disclose interests that might affect their ability to review work objectively, and required editors whose interests may impair their ability to make an unbiased editorial decision to withdraw from discussions or deputize decisions.[102] The paper contains no COI disclosure and no statement confirming its absence. The contrast with Davis (2026), published in the same journal, is instructive: that paper explicitly states, "The author declares no conflicts of interest."[103]

The same process-based concern applies to the Status Review. The final listing rule states that at the request of the SRT, the SMM Taxonomy Committee provided its scientific opinion that it is highly likely that the Bryde's whales in the Gulf of Mexico are at least an undescribed subspecies,[104] a determination that Dr. Rosel's Status Review Team solicited[105] while she was simultaneously assuming the Taxonomy Committee chairship in September 2016.[106] Whether the Committee's opinion was solicited, received, or confirmed before or after she assumed the

[100] NOAA, NAO 202-735D: Scientific Integrity, supra note 48, §7.03 (eff. December 7, 2011) (copy on file with author) ("Decisions to approve or not approve a Fundamental Research Communication must be based only on whether the work is scientifically meritorious: specifically, whether the methods used are clear and appropriate; the presentation of results is accurate and not misleading; the conclusions are supported by the data; and there are no apparent, actual, or potential conflicts of interest"). NAO 202-735D-2 §8.03 (eff. January 19, 2021) contains materially identical language requiring supervisors to confirm there are no apparent, actual, or potential conflicts of interest before approving an FRC.

[101] C. Graf et al., "Best Practice Guidelines on Publishing Ethics: A Publisher's Perspective, 2nd Edition," International Journal of Clinical Practice 68, no. 12 (December 2014): 1410-1428, https://doi.org/10.1111/ijcp.12557; also available as a standalone PDF at https://authorservices.wiley.com/asset/Best-Practice-Guidelines-on-Publishing-Ethics-2ed.pdf. The 3rd edition is Wiley, Best Practice Guidelines on Research Integrity and Publishing Ethics, 3rd ed. (April 17, 2020), https://authors.wiley.com/ethics-guidelines/index.html.

[102] Graf et al., "Best Practice Guidelines," supra note 101, 2nd ed., at 10; Wiley, Best Practice Guidelines, supra note 93, 3rd ed., Conflicts of Interest section.

[103] Davis, "Rice's Whale," supra note 51, at 9 ("The author declares no conflicts of interest").

[104] "Endangered Status of the Gulf of Mexico Bryde's Whale," supra note 33, at 15449.

[105] "Endangered Status of the Gulf of Mexico Bryde's Whale," supra note 33, at 15451.

[106] Supra note 85.

chairship, and whether that dual role was disclosed or reviewed, is a specific question this RFC asks NOAA to examine.

C. Key Process and Validation Records Not in the Public Record

Two categories of process and validation records would establish whether the process provided the independence the IQA objectivity standard requires, and neither appears to be publicly available.

PPT further asks NOAA to confirm, as part of its EO 14303 Section 5(c) retrospective review of the 2021 direct final rule and 2023 proposed critical habitat designation,[107] whether the governing scientific integrity standard NAO 202-735D-2 was satisfied with respect to the publications on which those actions relied.[108]

First, the pre-publication supervisory review records for Rosel et al. (2016) and Rosel et al. (2021), including any records maintained in NOAA's Research, Planning, and Tracking System (RPTS), would establish whether the required COI review was conducted and documented for each publication.[109] PPT requests their disclosure as part of the investigation requested in Section VII.

Second, the Taxonomy Committee's voting records for its evaluation of Rosel et al. (2021) would establish whether Dr. Rosel voted, abstained, or recused herself, and whether any disclosure of her authorship was made. The Federal Register direct final rule records only that the Committee "agreed with the findings" and says nothing about the voting process.[110] The SMM Taxonomy Committee adopted formal COI terms of reference only in July 2025, more than four years after the evaluation at issue, and those terms provide that recusal for co-

[107] Supra note 90.
[108] Exec. Order No. 14303, supra note 4, §5(a)(i), 90 Federal Register at 22604 ("scientific integrity policies in each agency shall be governed by the scientific integrity policies that existed within the executive branch on January 19, 2021, except that in the event of a conflict between such policies and the policies and requirements of this order, the policies and requirements of this order control"). NAO 202-735D-2 (eff. January 19, 2021), https://www.noaa.gov/organization/administration/nao-202-735d-2-scientific-integrity, was the NOAA scientific integrity policy in force on that date and is therefore the interim governing standard for NOAA's retrospective review. NAO 202-735D-2 §7.03 directs covered individuals to disclose real or perceived conflicts of interest when reviewing manuscripts and §8.03 requires supervisors to confirm there are no apparent, actual, or potential conflicts of interest before approving an FRC.
[109] Supra note 100.
[110] "Technical Corrections for the Bryde's Whale," supra note 36, 86 Federal Register at 47022-23 (recording that the SMM Taxonomy Committee "evaluated the Rosel et al. (2021) paper and agreed with the findings" and that "NMFS recognizes the taxonomic change and therefore is making technical revisions to 50 CFR 224.101(h)," but disclosing nothing about the voting process, the number of members participating, recusal or abstention notations, or whether Dr. Rosel disclosed her authorship of the paper under evaluation).

authorship conflicts is "voluntary, but is recommended."[111] Whether any COI standards existed at the time of the evaluation is unknown from the publicly available record.

The absence of these categories of records means there is no publicly available basis to confirm that the process provided the genuine independence the IQA objectivity standard requires. A validation process that left no record of how it was conducted does not satisfy that standard.

VII. Requested Investigations for the Purpose of Correction

1. Confirm whether Dr. Rosel produced the 2021 paper in her official NMFS capacity, and as such, NOAA had authority to review and approve it before submission.
2. Confirm that the NOAA IQA guidelines were unchanged through November of 2021, and relatedly confirm and apply the correct version to each dissemination of information at issue.
3. Assess whether NOAA's current reliance on both Rosel publications as the evidentiary foundation for pending regulatory actions is consistent with Gold Standard Science requirements, which in turn requires NOAA to evaluate whether the pre-publication conflict-of-interest review process that governed Rosel et al. (2016) was followed, and whether any equivalent review obligation applied to Rosel et al. (2021) and if so whether it was followed.
4. Validate the adequacy of the Rosel et al. (2016) peer review process, and investigate whether any peer review was utilized in preparing Rosel et al. (2021).
5. Confirm whether ontogenetic variation in the skull features of the second specimen, USNM 572922, a subadult male, has been assessed and, if so, where that assessment is documented.
6. Confirm whether the morphological line of evidence, standing alone, satisfies the objectivity and reproducibility standards the IQA requires of influential scientific information relied upon in ongoing regulatory action.
7. Confirm whether the concurrent institutional roles held by Dr. Rosel provided the required independence in the process through which influential scientific information was produced and validated.
8. Pursuant to EO 14303 Section 5(c), review the 2021 direct final species determination rule and 2023 proposed critical habitat designation and confirm their alignment with the requirement that science informing agency decisions be conducted without conflicts of interest to maintain objectivity.

[111] Society for Marine Mammalogy, Taxonomy Committee Terms of Reference (approved by Committee July 2, 2025; approved by Board of Governors July 15, 2025) ("voluntary, but is recommended"), https://marinemammalscience.org/about-us/committees/taxonomy-committee-terms-of-reference/

9. Confirm whether the SMM Taxonomy Committee's opinion was solicited, received, or confirmed before or after she assumed the chairship, and whether that dual role was disclosed or reviewed.
10. Confirm, as part of its EO 14303 Section 5(c) retrospective review of the 2021 direct final rule and 2023 proposed critical habitat designation, whether the governing scientific integrity standard NAO 202-735D-2 was satisfied with respect to the publications on which those actions relied.
11. Disclose the pre-publication supervisory review records for Rosel et al. (2016) and Rosel et al. (2021), including any records maintained in NOAA's Research, Planning, and Tracking System (RPTS).
12. Disclose the SMM Taxonomy Committee's voting records for its evaluation of Rosel et al. (2021) and the COI standards that existed at the time of the evaluation, if any.

CONCLUSION

While the scientific criticisms set forth in this RFC are not intended to suggest that the Gulf of Mexico whale population is not a conservation concern warranting some level of protection, this RFC is directed at the integrity of the information and process by which the determinations identified above were made and validated. A lawful, transparent, and scientifically rigorous process, i.e., one that acknowledges uncertainty, discloses conflicts, and ensures independent validation of information, results in determinations that can withstand scrutiny and warrant the public's trust. In this case, the relevant decisions contributed to the convening of the Endangered Species Committee resulting in a unanimous vote to grant the first ESA exemption on national security grounds in the statute's history.[112] Plainly, decisions like those at issue here can have serious impacts on the life of the entire nation and must be sound, both in terms of the information and process used. Accordingly, PPT requests that your office undertake the necessary investigation to confirm that all necessary process standards were met and, if they were not, that appropriate corrective action be implemented to ensure they comply with Gold Standard Science and reverse any decisions based upon violations of the IQA.

Sincerely,

Michael Chamberlain
Director
Protect the Public's Trust

[112] "Endangered Species Committee Meeting Announcement," supra note 9; Brown, "Federal 'God Squad' Exempts Oil and Gas Drilling," supra note 9; Natter and Dlouhy, "Meet the 'God Squad,'" supra note 9.