

Fisheries Science Modernization Act

Section-by-Section Summary

Section 1. Short Title.

Designates the bill as the “Fisheries Science Modernization Act of 2026.”

Section 2. Definitions.

Defines key terms including Administrator (NOAA), eDNA, fishery-independent, Indian Tribe, National Aquatic Biomolecular Coordination Network, and Native Hawaiian organization.

Section 3. Categorical Exclusion for Water, Air, and Sediment Collection.

Clarifies that collecting water, air, or sediment samples exclusively for eDNA analysis does not constitute a taking under ESA or MMPA.

TITLE I – IMPROVING FISHERIES STOCK ASSESSMENTS BY INCORPORATING eDNA

Section 101. Pilot Study on Use of eDNA in Stock Assessments.

(a) In General – Directs NOAA (via NMFS) to conduct a multi-year pilot study to evaluate eDNA-based abundance estimation and validate eDNA for federal stock assessments.

(b) Locations – Requires the pilot study to be conducted in at least three federally managed fisheries representing diverse regions, stock structures, or areas with limited survey coverage.

(c) Elements – Specifies required components of the pilot study, including comparisons with traditional fishery-independent survey methods; incorporation of eDNA sampling into ongoing surveys; evaluation of emerging technologies such as autonomous or AI-enabled samplers; documentation of method performance and conditions for use; engagement with fishery councils, Tribes, fishermen, academic partners, and private labs; transparency through clear sampling and laboratory protocols.

(d) Partners – Outlines eligible and required partners, including regional fishery councils, marine commissions, Tribes and Native organizations, fishermen, academia, private-sector laboratories, and state and federal agencies.

(e) Annual Report – Requires NOAA to submit annual reports to Congress on progress, findings, challenges, and next steps.

(f) Funding – Provides that funding will come from existing allocations for modernizing stock assessments and surveys.

Section 102. Implementation Plan for Evaluating and Integrating eDNA Methods in Federally Managed Fisheries.

(a) In General – Directs NOAA to produce an implementation plan based on the pilot study to guide the systematic evaluation and integration of eDNA across all federally managed fisheries.

(b) Elements – Requires that the plan include evaluation timelines, fishery prioritization, workforce and capacity needs, processes for incorporating eDNA into stock assessments, support cooperative research, engagement with partners, alignment with national standards developed by the National Aquatic Biomolecular Coordination Network, identification of survey efficiencies and ecosystem indicators, and safeguards for genetic information.

(c) Report – Requires NOAA to submit a report to Congress no later than two years after the pilot study begins.

Section 103. Fisheries Workforce and Field Capacity for eDNA-Enabled Stock Assessments.

(a) In General – Requires NOAA to expand its workforce and field capabilities of NMFS, in coordination with other Line Offices, to support eDNA sampling.

(b) Activities – Specifies that the Administrator shall prioritize technician training and deployment, expansion of cooperative research partnerships with fishermen, development of standardized field protocols, coordination with partners for cost-effective sample processing, training NOAA personnel in QA/QC and modeling, and evaluation of autonomous sampling technology.

Section 104. Routine Collection of eDNA Samples in Ongoing Surveys.

(a) In General – Requires NOAA to incorporate routine eDNA collection into existing fishery surveys when it improves assessments or reduces costs but does not disrupt core operations.

(b) Elements – Specifies that routine collection must follow national standards, integrate with existing surveys, support long-term eDNA time series, maintain archival repositories and reference databases, and enable evaluation of survey efficiencies and expanded coverage.

Section 105. Amendments to Magnuson-Stevens Fishery Conservation and Management Act.

(a) In General – Adds a new section requiring the Secretary of Commerce to incorporate eDNA and other DNA-based methods into fisheries research, surveys, stock assessments, and ecosystem monitoring based on the best scientific information available, and guided by the

implementation plan described in Section 102, and national standards developed by the National Aquatic Biomolecular Coordination Network.

(b) Clerical Amendment – Updates the Magnuson-Stevens Act table of contents accordingly.

TITLE II – ENHANCING UNITED STATES COMPETITIVENESS THROUGH eDNA

Section 201. National Aquatic Biomolecular Coordination Network.

(a) Establishment – Creates a multi-agency National Aquatic Biomolecular Coordination Network to improve reliability and operational use of eDNA across the aquatic continuum.

(b) Governance and Structure – Designates NOAA as lead agency of the Network with the Administrator and a representative of OSTP serving as co-chairs.

(c) Participating Agencies – Includes representatives from NOAA, USGS, EPA, FWS, NSF, USDA, ONR, BIA, Smithsonian Institution, BOEM, NIH, NASA, CEQ, and other agencies designated by the co-chairs.

(d) Responsibilities – Tasks the Network with developing national eDNA standards; standardizing sampling, lab workflows, reporting, and analytics; ensuring agencies use compatible methods and data formats; establishing testbeds; creating QA/QC systems; coordinating with Tribes, states, and regional partners; developing open-access data practices while ensuring Tribal data protections; reducing duplication; aligning federal investments; and coordinating with existing national and international frameworks.

(e) Annual Meeting – Requires annual meetings to gather information on non-aquatic eDNA and eRNA uses.

(f) Annual Report – Requires NOAA to submit annual performance reports to OSTP covering progress, coordination updates, testbed results, future priorities, resource gaps, and non-aquatic applications.

Section 202. Research, Innovation, and Technology Transfer.

Authorizes NOAA to support scientific and technological advancement of eDNA tools, including marker development, improved sampling tools, genetic reference libraries, autonomous and AI-enabled sampling systems, improved detection technologies, bidirectional technology transfer with partners, performance expectations for federal procurement, and alignment with national standards. Updates are incorporated into annual Network reports to Congress described in Section 201(f).

Section 203. Strengthening the Capabilities of the Laboratory and Analytical Workforce.

(a) *In General* – Authorizes the NOAA Administrator to expand laboratory and analytical workforce capacity in coordination with the Network.

(b) *Activities* – Activities the Administrator may carry out include training programs and fellowships, partnerships with private eDNA labs and tech developers, expanding NOAA’s internal lab capacity for basic processing and QA/QC expertise, contracting with accredited external labs when cost-effective, and ensuring all federal and private workflows align with national standards developed by the Network for sampling, reporting, QA/QC, and calibration.