



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Alaska Fisheries Science Center
Fisheries Monitoring and Analysis Division
7600 Sand Point Way N.E.
Seattle, WA 98115-0070

Angel Drobnica, Chair
North Pacific Fishery Management Council
1007 W. 3rd Avenue
Anchorage, AK 99501

April 21, 2025

Dear Ms. Drobnica,

I am pleased to recommend the appointment of Dr. Meaghan Bryan as a member of the Gulf of Alaska (GOA) Groundfish Plan Team (GPT).

Dr. Bryan is a Research Fishery Biologist at NOAA's Alaska Fisheries Science Center in the Status of Stocks and Multispecies Assessment Program. Dr. Bryan has been directly involved with the NPFMC over the past 8 years by leading several age-structured stock assessments that include the Bering Sea and Aleutian Islands (BSAI) Greenland turbot, BSAI Kamchatka flounder, GOA northern and southern rock sole, and the index-based assessment for the GOA shallow-water flatfish complex. All of which have been used to provide management advice.

Dr. Bryan's experience aligns directly with the duties of the NPFMC GOA Plan Team. During her 14 year tenure at NOAA Fisheries she has led or co-led numerous stock assessments, participated as an expert reviewer or chaired several stock assessment reviews, and has conducted or led research projects evaluating the impact of survey change on stock assessments. Dr. Bryan is also a co-lead of a component of the AFSC's survey modernization effort. This project will conduct simulation experiments to evaluate how the level of precision in calibration ratios between old and new surveys affect uncertainty in stock assessment estimates. She is also a co-lead of the Gulf of Alaska Climate Integrated Modeling (GOA-CLIM) Project, which is a large collaborative effort to develop ecosystem, multispecies, and economic models to evaluate the expected response of the GOA system to environmental variation and fishing and provide practical management advice to the NPFMC.

Her educational background includes a Bachelor of Arts in biological science from Smith College, a Master of Science degree in marine science from North Carolina State University, and a PhD in zoology with a focus in quantitative stock assessment modeling from the University of British Columbia.

Dr. Bryan's stock assessment, simulation, and ecosystem modelling experience make her a well-qualified candidate for contributing to the Groundfish Plan Team.

Sincerely,

Dr. Robert Foy
AFSC Director

Meaghan D. Bryan

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EDUCATION

PhD ZOOLOGY | University of British Columbia, Vancouver, BC Canada 2012

Supervisor: Dr. Steven Martell

Dissertation: Management procedure evaluation of a data-limited multispecies fishery with application to the Hawaiian bottom fish fishery

Master of Science MARINE SCIENCE | North Carolina State University, Raleigh, NC 2003

Supervisor: Dr. David Eggleston

Dissertation: Influence of habitat corridors on dispersal success, predation induced mortality, and colonization of estuarine macrofauna in seagrass

Bachelor of Arts BIOLOGICAL SCIENCE | Smith College, Northampton, Massachusetts 1999

(Semester abroad Spring 1998 – School for Field Studies, Turks and Caicos Islands)

PROFESSIONAL EXPERIENCE

RESEARCH FISHERY BIOLOGIST | NOAA NMFS Alaska Fisheries Science Center, Seattle, WA January 2017-present

- Member of the Status of Stocks and Multispecies Assessments Program. Lead author of several Bering Sea and Aleutian Islands and Gulf of Alaska flatfish assessments, research evaluating impacts of survey changes on assessment results, and co-Principal Lead of the GOA Climate Integrated Modeling Project

RESEARCH FISHERY BIOLOGIST | NOAA NMFS Southeast Fisheries Science Center, Miami, Florida January 2011 – December 2016

- Member of the Sustainable Fisheries Division Gulf and Caribbean Branch. Led the Gulf of Mexico gag and red grouper assessments, and several US Caribbean data limited assessments. Member of the Caribbean Fisheries Management Council in 2016.

TEACHING ASSISTANT | University of British Columbia, Vancouver, British Columbia September 2005 – June 2011

- Taught two undergraduate laboratory sessions per semester for Introduction to Biology

SENIOR BIOLOGIST | Mote Marine Laboratory, Sarasota, Florida January 2003 – June 2005

- Developed and managed experiments evaluating the feasibility of stock enhancement strategies for red snapper in the Gulf of Mexico. Conducted studies of post release survival rates of red snapper using acoustic arrays

TEACHING and RESEARCH ASSISTANT | North Carolina State University, Raleigh, North Carolina September 2003 – June 2005

- Taught two undergraduate laboratory sessions per semester for Introduction to Oceanography

PROFESSIONAL EXPERIENCE

RESEARCH STAFF | Florida Marine Research Institute, Marathon, Florida

**August 1999 –
August 2003**

- Member of a research team investigating the reproductive potential of Queen conch and Caribbean spiny lobster in the Florida Keys and monitoring Queen conch and Caribbean spiny lobster populations in marine protected areas (MPA) to evaluate MPA efficacy.

**INTERN | NOAA NMFS Southeast Fisheries Science Center and Duke University,
Beaufort, North Carolina**

**June – August
1998**

- Member of a research team to create a baseline database highlighting the relative health of the Neuse River fish species since the threat of *Pfiesteria piscicida*, a toxic dinoflagellate.

PUBLICATIONS

PEER_REVIEWED PAPERS

Rovellini, A., Punt, A. E., **Bryan, M. D.**, Kaplan, I. C., Dorn, M. W., Aydin, K., Fulton, E. A., Alglave, B., Baker, M. R., Carroll, G., Ferriss, B. E., Haltuch, M. A., Hayes, A. L., Hermann, A. J., Hervann, P.-Y., Holzman, K. K., Liu, O. R., McHuron, E., Morzaria-Luna, H. N., Moss, J., Surma, S., & Weise, M. T. 2024. Linking climate stressors to ecological processes in ecosystem models, with a case study from the Gulf of Alaska. *ICES Journal of Marine Science*. <https://doi.org/10.1093/icesjms/fsae002>

Bryan, M.D. and Thorson, J.T. 2023. The performance of model-based indices given alternative sampling strategies in a climate-adaptive survey design. *Frontiers in Marine Science*, 10, p.1198260. <https://doi.org/10.3389/fmars.2023.1198260>

Hulson, P.J.F., Williams, B.C., **Bryan, M.D.**, Conner, J. and Siskey, M.R., 2023. Reductions in sampling effort for fishery-independent age and length composition: balancing sampling efficiency, data uncertainty, and workforce health. *Canadian Journal of Fisheries and Aquatic Sciences*. <https://doi.org/10.1139/cjfas-2023-0164>

Siskey, M. Punt, A., Hulson, P.-J., **Bryan, M.**, Ianelli, J., Thorson, J. (2022). The estimated impact of changes to otolith field-sampling and ageing effort on stock assessment inputs, outputs, and catch advice. *Canadian Journal of Fisheries and Aquatic Sciences*. <https://doi.org/10.1139/cjfas-2022-0050>

Vihtakari, M., Hordoir, R., Treble, M., **Bryan, M.D.**, Elvarsson, B., Nogueira, A., Hallfredsson, E.H., Christiansen, J.S. and Albert, O.T., 2021. Pan-Arctic suitable habitat model for Greenland halibut. *ICES Journal of Marine Science*, 78(4), pp.1340-1356. <https://doi.org/10.1093/icesjms/fsab007>

Thorson, J.T., **Bryan, M.D.**, Hulson, P.J.F., Xu, H. and Punt, A.E., 2020. Simulation testing a new multi-stage process to measure the effect of increased sampling effort on effective sample size for age and length data. *ICES Journal of Marine Science*, 77(5), pp.1728-1737. <https://doi.org/10.1093/icesjms/fsaa036>

Sagarese, S.R., Harford, W.J., Walter, J.F., **Bryan, M.D.**, Isely, J.J., Smith, M.W., Goethel, D.R., Rios, A.B., Cass-Calay, S.L., Porch, C.E. and Carruthers, T.R., 2019. Lessons learned from data-limited evaluations of data-rich reef fish species in the Gulf of Mexico: implications for providing fisheries management advice for data-poor stocks. *Canadian Journal of Fisheries and Aquatic Sciences*, 76(9), pp.1624-1639. <https://doi.org/10.1139/cjfas-2017-0482>

Harford, W.J., Grüss, A., Schirripa, M.J., Sagarese, S.R., **Bryan, M.** and Karnauskas, M., 2018. Handle with care: establishing catch limits for fish stocks experiencing episodic natural mortality events. *Fisheries*, 43(10), pp.463-471. <https://doi.org/10.1002/fsh.10131>

Sagarese, S.R., Rios, A.B., Cass-Calay, S.L., Cummings, N.J., **Bryan, M.D.**, Stevens, M.H., Harford, W.J., McCarthy, K.J. and Matter, V.M., 2018. Working towards a framework for stock evaluations in data-limited fisheries. *North American Journal of Fisheries Management*, 38(3), pp.507-537. <https://doi.org/10.1002/nafm.10047>

PEER_REVIEWED PAPERS

Q.C. Huynh, T. Gedamke, C.E. Porch, J.M. Hoenig, J.F. Walter, **M.D. Bryan**, J. Brodziak. 2017. Estimating Total Mortality Rates from Mean Lengths and Catch Rates in Nonequilibrium Situations, *Transactions of the American Fisheries Society*, 146:4, 803-815, DOI: [10.1080/00028487.2017.1308881](https://doi.org/10.1080/00028487.2017.1308881)

Carruthers, T.R., Walter, J.F., McAllister, M.K. and **Bryan, M.D.**, 2015. Modelling age-dependent movement: an application to red and gag groupers in the Gulf of Mexico. *Canadian Journal of Fisheries and Aquatic Sciences*, 72(8), pp.1159-1176. <https://doi.org/10.1139/cjfas-2014-0471>

Bryan, M.D. 2012. Management procedure evaluation of a data-limited multispecies fishery with application to the Hawaiian bottomfish fishery. University of British Columbia. Vancouver, British Columbia, Canada. <https://open.library.ubc.ca/soa/cIRcle/collections/ubctheses/24/items/1.0103460>

Zeller, D., **Darcy, M.**, Booth, S., Lowe, M.K., Martell, S. 2008. What about recreational catch? Potential impact on stock assessment for Hawaii bottomfish fisheries. *Fisheries Research* 91: 88-97.

Brennan, N.P., **Darcy, M.C.**, Leber, K. 2006. Predator free enclosures improve post-release survival of stocked common snook. *Journal of Experimental Marine Biology and Ecology* 335 (2): 302-311. <https://doi.org/10.1016/j.jembe.2006.04.001>

Darcy, M.C., Eggleston, D.B. Do Habitat Corridors Influence Animal Dispersal and Colonization in Estuarine Systems?. *Landscape Ecology* 20, 841–855 (2005). <https://doi.org/10.1007/s10980-005-3704-y>

TECHNICAL REPORTS

S.C. Anderson, N.Bacheler, L.Barnett, C.W, Berg, K. Blackhart, D. Bolser, P. Börjesson, **M. Bryan**, T. Cariou, C. Chaves, E. Chilton, J. Conner, A. De Groote, L. DeFilippo, P. Dolder, C.Foley, H. Gerritsen, M. Hall, E. Johnsen, E. Kelly, S. Kotwicki, S.Kupschus, G. Lambert, A. Lipsky, E. Markowitz, G. Martin, A.Miller, C. Minto, B. O'Connor, K. Ono, Z. Oyafuso, I. Paradinas, M. G. Pennino, E. Phillips, J. G. Ramirez, Y.Reecht, P. Regular, M. Siple, M. Siskey, D. Stokes, A.Stroh, J.T. Thorson, R. van Hal, J.Vigneau, D. Vilas, K.Wieland, S.Yalcin. 2023. Workshop on Unavoidable Survey Effort Reduction 2 (WKUSER2): ICES Scientific Reports 5 <https://www.ices.dk/community/groups/Pages/WKUSER2.aspx>.

Hulson, P.J., Williams, B.C., **Bryan, M.D.**, Conner, J., Siskey, M.R., Stockhausen, W.T., McDermott, S.F. and Long, W.C., 2023. Subsampling catches to determine sex-specific length frequency in Alaska Fisheries Science Center bottom trawl surveys. NOAA technical memorandum NMFS-AFSC 464 <https://doi.org/10.25923/d6s0-y769>

Bryan, M.D., S. Barbeaux, J. Ianelli, S. Zador, J. Hoff. 2023, [2022](#), 2021, [2020](#), 2019, [2018](#), 2017. Assessment of the Greenland turbot stock in the Bering Sea and Aleutian Islands. In Stock assessment and fishery evaluation report for the groundfish resources of the Bering Sea and Aleutian Islands. North Pacific Fishery Mngt. Council, 605 W 4th Ave, Suite 306 Anchorage, AK 99501.

Bryan, M.D., K. Shotwell, E. Siddon, S. Zador, J. Ianelli, E. Markowitz. 2023, [2022](#), 2021, [2020](#), 2019, 2018. Assessment of the Kamchatka flounder stock in the Bering Sea and Aleutian Islands. In Stock assessment and fishery evaluation report for the groundfish resources of the Bering Sea and Aleutian Islands. North Pacific Fishery Mngt. Council, 605 W 4th Ave, Suite 306 Anchorage, AK 99501.

Bryan, M.D., B. Ferris. 2023, 2022, [2021](#), 2020, 2019, 2018. Assessment of the shallow-water flatfish stock in the Gulf of Alaska. In Stock assessment and fishery evaluation report for the groundfish resources of the Gulf of Alaska. North Pacific Fishery Mngt. Council, 605 W 4th Ave, Suite 306 Anchorage, AK 99501.

Bryan, M.D.. 2023, 2022, [2021](#). Assessment of the northern and southern rock sole (*Lepidopsetta polyxstra* and *bilineata*) stocks in the Gulf of Alaska. In Stock assessment and fishery evaluation report for the groundfish resources of the Gulf of Alaska. North Pacific Fishery Mngt. Council, 605 W 4th Ave, Suite 306 Anchorage, AK 99501.

TECHNICAL REPORTS

Spies, I., **M. Bryan**, L. Barnett, E. Markowitz, Z. Oyafuso, E. Siddon. [2023](#). Assessment of the yellowfin sole stock in the Bering Sea and Aleutian Islands. In Stock assessment and fishery evaluation report for the

groundfish resources of the Bering Sea and Aleutian Islands. North Pacific Fishery Mngt. Council, 605 W 4th Ave, Suite 306 Anchorage, AK 99501.

McGilliard, C.R., J. Ianelli, **M. Bryan**, I. Spies, R. Haehn, A.E. Punt, S. Lowe. [2022](#). Assessment of the northern rock sole stock in the Bering Sea and Aleutian Islands. In Stock assessment and fishery evaluation report for the groundfish resources of the Bering Sea and Aleutian Islands. North Pacific Fishery Mngt. Council, 605 W 4th Ave, Suite 306 Anchorage, AK 99501.

Bryan, M.D., W. Palsson. 2020, 2019, 2018, [2017](#). Assessment of the northern and southern rock sole (*Lepidopsetta polyxstra* and *bilineata*) stocks in the Gulf of Alaska. In Stock assessment and fishery evaluation report for the groundfish resources of the Gulf of Alaska. North Pacific Fishery Mngt. Council, 605 W 4th Ave, Suite 306 Anchorage, AK 99501.

Shotwell, S.K., **M. Bryan**, D.H. Hanselman, E. Markowitz, E. Siddon, I. Spies, J. Sullivan. [2022](#), 2021, [2020](#). Assessment of the arrowtooth flounder stock in the Bering Sea and Aleutian Islands. In Stock assessment and fishery evaluation report for the groundfish resources of the Bering Sea and Aleutian Islands. North Pacific Fishery Mngt. Council, 605 W 4th Ave, Suite 306 Anchorage, AK 99501.

Cass-Calay, S., Arnold, W.S., **Bryan, M.D.** and Schull, J.C., 2016. Report of the US Caribbean Fishery-Independent Survey Workshop. NOAA technical memorandum NMFS-SEFSC ; 688.
<http://doi.org/10.7289/V5XS5SFN>

Sagarese, S.R., Walter III, J.F., **Bryan, M.D.** and Carruthers, T.R., 2016. Evaluating methods for setting catch limits for gag grouper: data-rich versus data-limited. by TJ Quinn, JL Armstrong, MR Baker, JD Heifetz, and D. Witherell. *Alaska Sea Grant, University of Alaska Fairbanks, Alaska, USA*.

Sagarese, S.R., **Bryan, M.D.**, Walter, J.F., Schirripa, M., Grüss, A. and Karnauskas, M., 2015. Incorporating ecosystem considerations within the Stock Synthesis integrated assessment model for Gulf of Mexico Red Grouper (*Epinephelus morio*). SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405.

Sagarese, S.R., Walter, J.F., Isely, J.J., **Bryan, M.D.** and Cummings, N., 2015. A comparison of data-rich versus data-limited methods in estimating overfishing limits. SEDAR 46. SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405.

Bryan, M.D. 2015. Summary of the Trip Interview Program data from the US Caribbean. SEDAR46- DW-05. SEDAR, SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405. 152 pp.

Bryan, M.D. et al., 2015. SEDAR 42 final stock assessment report: Gulf of Mexico Red Grouper. SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405.

Bryan, M.D. and McCarthy, K., 2015. *Standardized catch rates for Red Grouper from the United States Gulf of Mexico vertical line and longline fisheries* (p. 32). SEDAR42-AW-02. SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405.

Bryan, M.D., et al. 2014. SEDAR 35 Final stock assessment report: Caribbean red hind. SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405.

Tetzlaff, J., **Bryan, M.D.** et al., 2013. SEDAR 33 final stock assessment report: Gulf of Mexico Gag Grouper. SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405.

Bryan, M.D., Gedamke, T. and Walter, J.F., 2013. A pilot, cooperative fishery-independent trap survey of Saint Croix, United States Virgin Islands. NOAA technical memorandum NMFS-SEFSC ; 641.
<https://repository.library.noaa.gov/view/noaa/730>.

TECHNICAL REPORTS

Bryan, M.D., et al. 2013. SEDAR 30 Final stock assessment report: Caribbean blue tang. SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405. 178pp.

Bryan, M.D., et al. 2013. SEDAR 30 Final stock assessment report: Caribbean queen triggerfish. SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405.

Bryan, M.D., Saul S. 2012. Recreational Indices for Cobia and Spanish Mackerel in the Gulf of Mexico. SEDAR28-DW22. SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405.

Gedamke, T., **Bryan, M.D.**, et al. 2011. SEDAR 26 Final stock assessment report: Caribbean redbtail parrotfish. SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405.

Gedamke, T., **Bryan, M.D.**, et al. 2011. SEDAR 26 Final stock assessment report: Caribbean queen snapper. SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405.

Gedamke, T., **Bryan, M.D.**, et al. 2011. SEDAR 26 Final stock assessment report: Caribbean silk snapper. SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405.

Bryan, M.D. del Mar Lopez, M., Tokoch, B. 2011. A review of the life history characteristics of silk snapper, queen snapper, and redbtail parrotfish. SEDAR26-DW-01. Sustainable Fisheries Division Contribution No. SFD-2011-008. SEDAR 4055 Faber Place Drive, Suite 201 North Charleston, SC 29405.

Darcy, M., Christensen, L.B. 2009. Stock Assessment Report: Taking stock of the Fraser & Columbia River Eulachon. Stochastic stock reduction analysis. Department of Fisheries and Oceans. Pacific Biological Station. Nanaimo, BC. 27pp.

Martell, S.J.D., **Darcy, M.C.**, Christensen, L.B., Zeller, D. 2007. Risk assessment for the main Hawaiian Islands bottomfish stocks. National Oceanographic and Atmospheric Association. Pacific Islands Fisheries Science Center. Honolulu, HI.

Martell, S.J.D., Korman, J., **Darcy, M.**, Christensen, L., Zeller, D. 2006. Status trends of the Hawaiian bottomfish stocks: 1948-2004. National Oceanographic and Atmospheric Administration. Pacific Islands Fisheries Science Center. Honolulu, HI.

SELECTED PRESENTATIONS

Bryan, M.D., Monnahan, C. 2023. Quantifying the significance of retrospective patterns in fisheries stock assessments. North Pacific Fisheries Management Council, September Joint Groundfish Plan Team Meeting.

Bryan, M.D., Cronin-Fine-L., Barnett, L., Kasperski, S., Punt, A.E. 2022. Quantifying the scientific and economic value of surveys to fisheries management. Workshop on Unavoidable Survey Effort Reduction 2. Galway, Ireland.

Bryan, M.D., Thorson, J.T. 2021. The performance of model-based indices given alternative sampling strategies in a climate-adaptive survey design. North Pacific Fisheries Management Council. Joint Groundfish Plan Team September Meeting. Seattle, WA.

Bryan, M.D., Dorn, M., Stockhausen, W., Barbeaux, S.J., Ianelli, J., Lowe, S., McGilliard, C.R., Monnahan, C., Spencer, P., Spies, I., Thompson, G. 2020. Evaluating the impact of a lack of recent survey data in Alaska Fisheries Science Center groundfish and crab stock assessment models. North Pacific Fisheries Management Council. September Joint Groundfish Plan Team Meeting.

Bryan, M.D., Dorn, M., Stockhausen, W., Barbeaux, S.J., Ianelli, J., Lowe, S., McGilliard, C.R., Monnahan, C., Spencer, P., Spies, I., Thompson, G. 2020. Evaluating the impact of a lack of recent survey data in Alaska Fisheries Science Center groundfish and crab stock assessment models. North Pacific Fisheries Management Council. September Crab Plan Team Meeting. (Invited)

Bryan, M.D., Dorn, M., Stockhausen, W., Barbeaux, S.J., Ianelli, J., Lowe, S., McGilliard, C.R., Monnahan, C., Spencer, P., Spies, I., Thompson, G. 2020. Evaluating the impact of a lack of recent survey data in Alaska Fisheries Science Center groundfish and crab stock assessment models. North Pacific Fisheries Management Council. October SSC meeting. (Invited)

Bryan, M.D., Thorson, J.T. 2019. The performance of model-based indices given alternative sampling strategies in a climate-adaptive survey design. Workshop on Unavoidable Survey Effort Reduction. Seattle, WA.

LEADERSHIP AND ADVISORY EXPERIENCE

Chair GOA pollock Center of Independent Experts (CIE) Review	2024
Co-Chair ICES Benchmark Workshop for Gadoid Stocks	2024
Acting Planning Officer Alaska Fisheries Science Center	October 2023 – February 2024
Mid-Career Leadership Development Program	February 2023 – November 2023
Co-Chair ICES Benchmark Workshop for Flatfish Stocks in the North Sea and Celtic Sea	2020
Reviewer for DFO Canada Regional Peer Review Meeting: Management procedure framework for data limited species in British Columbia	2020
Co-Chair ICES Benchmark Workshop for Baltic cod 2	2019
Member of the Caribbean Fisheries Management Council SSC	2016
Reviewer ICES Benchmark Workshop for Baltic cod	2015