

# Jason R Gasper

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## Education

Ph.D. University of Alaska Fairbanks (2011), School of Fisheries and Ocean Sciences  
M.M.A. University of Washington, School of Marine Affairs (2004)  
B.S. University of Alaska Southeast (2002)

## Certificates

Leadership and Management - Negotiation, leadership principles, and strategic implementation  
*Harvard Business School 2021*  
Data Science — Python based certification on data analytics, machine learning, and deep learning  
*University of Washington 2020*

## Other Training

FSH 559 Numerical Computing for Natural Resources 2018. University of Washington. Dr. Andre Punt  
Bayesian Disease Mapping and INLA: Spatial Modeling Week-Long Course 2017. Medical University of South Carolina. Dr. Andrew Larson  
Stock Synthesis Workshop. 2014. Juneau, Alaska. Dr. Ian Taylor  
Communicating with the Media. Benscheidt Communications Group. Juneau, Alaska 2010  
Mark-Recapture/Fish Abundance Workshop. 2005. Alaska Department of Fish and Game. Juneau, Alaska

## Work Experience

2017- Present	Senior Analyst: National Marine Fisheries Service: Juneau, Alaska
2024	Data Scientist Detail: National Marine Fisheries Service: Atlantic Highly Migratory Species
1/2022 -6/2022	Acting Catch Accounting Branch Chief: National Marine Fisheries Service: Juneau, Alaska
2006-2017	Resource Management Specialist: National Marine Fisheries Service: Juneau, Alaska
2005-2006	Regulatory Specialist: National Marine Fisheries Service: Juneau, Alaska
2004-2005	Assistant Area Management Biologist: Alaska Department of Fish and Game, Sportfish Division: Juneau, Alaska (supervisor)
2002-2004	Supervisory Research Assistant: University of Washington: Seattle, Washington, and Gustavus, Alaska
1999-2001	Seasonal Fishery Technician: Alaska Department of Fish and Game, Commercial Fisheries Division: Juneau, Alaska and Excursion Inlet.
1998-2000	Materials Testing and Water Quality Analyst: Analytica Alaska (winter season only 1999-2000): Juneau, Alaska.

## Professional Services

2023-2024	NMFS National Standard Working Group
2022-2024	NPFMC Climate Change Task Force
2016-present	Halibut Discard Mortality Workgroup
2018-present	US Delegate for US/Russia Central Bering Sea Convention
2018-2021	Data Poor Working Group and NS1 Rollover Working Group
2016-present	Science and Statistical Committee of the North Pacific Fishery Management Council
2013-2015	Bering Sea Crab Plan Team of the North Pacific Fishery Management Council
2012-2023	Observer Science Committee

2014	Session chair American Fisheries Society Symposium, Alaska Chapter. Fishery Management session.
2012-2014	Member of NOAA's National Recreational Fishing Initiative working group
2012-2013	Member of National Standard 1 Guideline Revision workgroup
2010	Member of National Bycatch Report Working Group
2010	Total Catch Accounting workgroup
2008-2020	Board Member, Juneau Chapter of Trout Unlimited

### *Teaching*

2012, 14, 16	University of Alaska Fairbanks. Lectures for FSH640: Fishery Management in Alaska
2013, 2015	R-Cran Workshop: Led full day workshops. Alaska Regional Office, Juneau
2013	Guest lecture for BIOL 315: Current Topics in Biology. University of Alaska Southeast
2011	Guest lecture for BIOL 415: Physiology of Marine Organisms. University of Alaska Southeast
2009	Assistant for ADMB workshop provided by Dr. Jim Ianelli. Alaska Regional Office, Juneau, Alaska

### *Student Mentorship*

Cory Leschure	Alaska Pacific University. Assessing variability in trawl catch estimate of crab in the Bering Sea. Master's Student. Graduated 2021
Jennifer Roberts	American Public University. Assessing seabird bycatch in fisheries off Alaska. Masters Student. Graduated 2018

### *Specialized Skills*

- Statistical survey design, estimation, and evaluation
- Data analysis and predictive modeling including multivariate statistical modeling, Bayesian analysis, machine learning, and neural networks
- Versatile across multiple platforms and languages: SQL/Oracle, GIS Applications (ESRI, R), Git/GitLab/Github, R, Python, integration in Google Colab and Jupyter Notebook
- Experience in fish stock assessments, including scientific reviews, coursework and training, workshops, and contributing analyses
- Visualization of large data sets and model results using R and Python
- Deep understanding of federal regulatory process, associated analyses, and governing regulations for fisheries and rulemaking
- Organizational process related to strategic design, business planning, and developing high functioning teams

## **Selected Publications**

- Gasper, J.** and J. Cahalan. 2025. Utilizing the Random Forest Algorithm for Interpretable Machine Learning that Informs Post-stratification of Commercial Fisheries Data. Fisheries Research: 281(107253). DOI: 10.1016/j.fishres.2024.107253
- Cahalan, J., and **J. Gasper**. 2022. The commercial size limit for the Pacific halibut fishery off Alaska and its relationship to observer-derived estimates of at-sea discard. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-432, 42 p.
- Holland, D., D. Lambert, E. Schnettler, R. Methot, M. Karp, K. Brewster-Geisz, J. Brodziak, S. Crosson, N. Farmer, K. Frens, **J. Gasper**, J. Hastie, P. Lynch, S. Matson, and E. Thunberg. 2020. National Standard 1 Technical Guidance for Designing, Evaluating, and Implementing Carry-over and Phase-in Provisions. NOAA Tech. Memo. NMFS-F/SPO-203, 41 p.
- Gasper, J.R.**, C. Tide, G. Harrington, J. Cahalan, Bibb S., G. Merrill. 2018. Supplement to the Environmental Assessment for Restructuring the Program for Observer Procurement and Deployment in the North Pacific. NOAA Tech Memo. NMFS-F/AKR-19.

- King, J.R., G.A. McFarlane, V. Gertseva, **J. Gasper**, S. Matson, C.A. Tribuzio. 2018. Shark interactions with directed and incidental fisheries in the Northeast Pacific Ocean: historic and current encounters, and challenges for shark conservation. In: Larson, S. and D. Lowry eds. *Northeast Pacific Shark biology, research and conservation*. *Advances in Marine Biology* 77.
- Ganz, P., S. Barbeaux, J. Cahalan, **J. Gasper**, S. Lowe, R. Webster, C. Faunce. 2018. Deployment Performance Review of the 2017 North Pacific Observer Program. NOAA Tech. NMFS-AFSC-379.
- Cahalan, J., **J. Gasper**, and J. Mondragon. 2015. Evaluation of Design-Based Estimators in the Federal Groundfish Fisheries off Alaska. In: G.H. Kruse, H.C. An, J. DiCosimo, C.A. Eischens, G.S. Gislason, D.N. McBride, C.S. Rose, and C.E. Siddon (eds.), *Fisheries Bycatch: Global Issues and Creative Solutions*. Alaska Sea Grant, University of Alaska Fairbanks. <http://doi.org/10.4027/fbgics.2015.09>.
- Faunce, C., **J. Gasper**, J. Cahalan, S. Lowe, R. Webster, and T. A'mar. 2015. Deployment performance review of the 2014 North Pacific Groundfish and Halibut Observer Program. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-302, 55 p. DOI:10.7289/V55M63NW.
- Cahalan, J., **Gasper J.R.**, and J. Mondragon. 2014. Catch estimation in the Federal trawl fisheries off Alaska: A simulation approach to compare the statistical properties of the simple mean estimator, a deterministic imputation method, and the ratio estimator. *Canadian Journal of Fisheries and Aquatic Sciences* 72:1024-1036.
- Faunce C., Cahalan J., **Gasper J.R.**, A'mar T., Lowe S., Wallace F., and Webster R. 2014. Deployment performance review of the 2013 North Pacific Groundfish and Halibut Observer Program. *NOAA Tech. Memo*. NMFS-AFSC-281: 76 pp.
- Cahalan, J., **J. R. Gasper**, and J. Mondragon. 2014. Catch sampling and estimation in the Federal groundfish fisheries off Alaska: 2014 Edition. *NOAA Tech. Memo*. NMFS-AFSC-286. 46 pp.
- Tribuzio C.A., **Gasper J.R.**, and Gaichas S. 2014. Estimation of bycatch in the unobserved Pacific halibut fishery off Alaska. *NOAA Tech-Memo*. NMFS-AFSC-265.
- Gasper, J.R.** and G.H. Kruse. 2013. Spatial modeling of the distribution of spiny dogfish (*Squalus acanthias*) in the Gulf of Alaska using generalized additive and generalized linear modeling techniques. *Canadian Journal of Fisheries and Aquatic Sciences* 70(9): 1372:1385.
- Faunce C. H., Wallace F., Cahalan J., **Gasper J.**, and M. Loefflad. 2013. Development of a statistically sound design for the deployment of fishery observers in Alaska. ICES Annual Science Conference. Reykjavik, Iceland.
- Gasper J.R.**, J. Watson, and J. Mondragon. 2011. Investigating weight loss in Pacific cod (*Gadus macrocephalus*) due to exsanguination. *NOAA Tech. Memo*. NMFS-AKRO-10.
- Cahalan, J., J. Mondragon, **J. R. Gasper**. 2010. Catch sampling and estimation in the Federal groundfish fisheries off Alaska. *NOAA Tech. Memo*. NMFS-AFSC-205. 51 pp.
- Gasper, J.R.**, Miller, M.L., Gallucci, V.F., Soiseth, C., 2007, The diffusion of fishery information in a charter boat fishery- Guide-client interactions in Gustavus, Alaska, in Piatt, J.F., and S.M. Gende, eds., *Proceedings of the Fourth Glacier Bay Science Symposium*, October 26–28, 2004: U.S. Geological Survey Scientific Investigations Report 2007-5047, p. 183-187.
- Gasper, J.R.**, V.F. Gallucci, M. Miller, J. Swanson, C. Soiseth, and D. Johnson. 2004. Sportfishing catch and harvest of Pacific halibut (*Hippoglossus stenolepis*) in Glacier Bay National Park, in Kruse, G.H., V.F. Gallucci, D.E. Hay, R.I. Perry, R.M. Peterman, T.C. Shirley, S.P. Spencer, B. Wilson, and D. Woodby. *Fisheries assessment and management in data-limited situations*. Alaska Sea Grant College Program, University of Alaska Fairbanks. AK-SG-05-02.

### *Magazine and Blogs*

- Alaska Fly Fishing Goods Newsletter*. July 2014. Eight tips for a great Alaska fishing trip.
- Northwest Fly Fishing Magazine*. February 2014. Floating and fishing the Wulik River, Alaska.
- Fish Alaska Magazine*. May 2013. A journey to middle earth: fishing and floating the Kisaralik River, Alaska.
- Le Mouching*. 2013. Cindy and Jason go for jaws: Fly fishing for mako sharks off San Diego.

*Le Mouching* 2012. My Argentine Mistress: Flyfishing for giant rainbows at Lago Strobel, Argentina.

## Recent Symposia Presentations

- Gasper, J.,** and J. Cahalan. 2024. Using machine learning approaches to evaluate high-dimensional data and optimize post-stratification. American Statistical Association Meeting on Statistical Practice. New Orleans.
- Gasper, J.,** and J. Cahalan. 2023. Finding our way through the forest: using machine learning to improve catch estimation. ICES Annual Science Conference. Bilbao Spain.
- Fuller, K., Tribuzio, C., Romain, S., Byrd J., **Gasper, J.** 2023. Using deep learning with electronic monitoring to improve data for catch estimation in fisheries in Alaska. International Fisheries Observer Conference. Tasmania, Australia.
- Gasper, J.** and J. Mondragon. May 2016. Cost and benefits of electronic monitoring programs. World Fisheries Congress, Busan, South Korea.
- Tribuzio, C.A., **J. Gasper,** J. Cahalan and M. Furuness. 2015. Does size really matter? The potential for managing large species by counts in Alaska. National Stock Assessment Workshop, Portland, Oregon.
- Tribuzio, C.A., **J. Gasper,** J. Cahalan and M. Furuness. 2015. Does size really matter? The potential for managing large species by counts in Alaska. Lowell Wakefield Symposium, Anchorage, Alaska.
- Cahalan J., and **J. Gasper.** 2015. Variability in mean weight per fish: How much does it matter? Alaska Marine Science Symposium. Anchorage, Alaska.
- Gasper J.,** J. Cahalan. 2015. Catch sampling and estimation in federal groundfish fisheries. Alaska Marine Science Symposium. Anchorage, Alaska.

## Awards

- 2022 NOAA Administrators Award: National Guidance for Data Poor Stocks
- 2020 NOAA Bronze Medal Team Award: Electronic Monitoring Program
- 2016 Diamond Alumni Award- Portland Community College
- 2014 NMFS Bronze Medal Award as team member for Observer Program Restructuring
- 2012 NMFS Alaska Region Employee of the Year
- 2002 Wendy Graham Memorial Scholarship
- 1998, 1999 Juneau Rotary Scholarship
- 2012 Alaska Sea Grant student expenses grant

## Significant Contributing Analysis

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|---------------|---|
| 2022-current  | Use of AI to enumerate species and take shark lengths using video data from fixed gear EM trips                                       |
| 2020-current  | Annual inseason management report to the North Pacific Fishery Management Council   |
| Dec 2024      | Final Report for the North Pacific Fishery Management Council's Climate Change Taskforce  |
| Feb 2022      | Climate Readiness Synthesis: North Pacific Fishery Management Council Climate Change Taskforce  |
| Jan 2019      | Development of trawl electronic monitoring program in the North Pacific Pollock Fishery.  |
| Jan 2019      | Draft Environmental Assessment for the St. Mathews Blue King Crab Rebuilding Plan   |
| Oct 2018      | Environmental Analysis/Regulatory impact review of funding mechanisms for the North Pacific Observer Program                          |
| Sept/Dec 2015 | Annual Deployment Plan for the North Pacific Observer Program   |
| June 2015     | Supplement to the Environmental Assessment for Restructuring the Program for Observer Procurement and Deployment in the North Pacific |

Sept/Dec 2014	Annual Deployment Plan for the North Pacific Observer Program
August 2014	Environmental Assessment/Regulatory Impact Review/Final Regulatory Flexibility Analysis for Amendments to the Fishery Management Plan for Groundfish of the Gulf of Alaska. Chinook Salmon Prohibited Species Catch in the Gulf of Alaska Non-pollock Trawl Fisheries (GOA Amendment 97)
July 2014	Environmental Assessment for proposed amendment 43 to the Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs and proposed amendment 103 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands To prevent overfishing and rebuild Pribilof Islands blue king crab
Sept/Dec 2013	Annual Deployment Plan for the North Pacific Observer Program
Sept/Dec 2012	Annual Deployment Plan for the North Pacific Observer Program
Sept. 2012	Regulatory Amendment for a Catch Sharing Plan For the Pacific Halibut Charter Sector and Commercial Setline Sector in International Pacific Halibut Commission Regulatory Area 2C and Area 3A Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis
Feb. 2012	Final Environmental Assessment/ Regulatory Impact Review/ Initial Regulatory Flexibility Analysis for Amendment 93 to the Fishery Management Plan for Groundfish of the Gulf of Alaska. Chinook Salmon Prohibited Species Catch in the Gulf of Alaska Pollock Fishery
Sept 2011	Regulatory Impact Review/Final Regulatory Analysis for a regulatory amendment to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area. Chinook Salmon 'PSC' Data Collection Program
March 2011	Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis for Proposed Amendment 86 to the Fishery Management Plan for Groundfish of the Bering sea/Aleutian Islands Management Area and Amendment 76 to the Fishery Management Plan for Groundfish of the Gulf of Alaska Restructuring the Program for Observer Procurement and Deployment in the North Pacific
Dec. 2008	Final Bering Sea Chinook Salmon Management Environmental Impact Statement/Regulatory Impact Review (BSAI Amendment 91)
April 2008	Environmental Assessment/Regulatory Impact Review/ Initial Regulatory Flexibility Analysis for a Regulatory Amendment to Limit Entry in the Halibut Charter Fisheries in IPHC Regulatory Areas 2C and 3A
Feb. 2008	Environmental Assessment/Regulatory Impact Review/Final Regulatory Flexibility Analysis for a Regulatory Amendment to Repeal the Vessel Incentive Program
April 2007	Regulatory Amendment to Modify the Halibut Bag Limit In the Halibut Charter Fisheries in IPHC Regulatory Area 2C
Nov. 2007	Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis for a Regulatory Amendment to Implement Guideline Harvest Level Measures in the Halibut Charter Fisheries in International Pacific Halibut Commission Regulatory Area 2C
Oct. 2006	Discussion paper on the implementation of an annual limit for charter anglers in IPHC Area 2C
June 2006	Environmental Assessment for the Issuance of an Exempted Fishing Permit to Test a Trawl Gear Modification to Reduce Bycatch Rates for Pacific Halibut in the Central Gulf of Alaska Pacific Cod Trawl
March 2006	Environmental Analysis for the issuance of an Exempted Fishing Permit to test new gear designed to harvest rockfish in the Gulf of Alaska, Southeast Outside District