

CURRICULUM VITAE
Janet T. Duffy-Anderson

PERSONAL:

Gulf of Maine Research Institute
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Portland, ME 04101

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PROFESSIONAL INTERESTS:

Climate-Ecosystem science. Ecosystem effects on fisheries dynamics. Fisheries oceanography. Fish early life history. Recruitment. Feeding and growth. Trophic interactions. Protected species. Habitat use. Marine and estuarine ecology.

EDUCATION:

Ph.D., March 1996, Marine Studies. University of Delaware, Graduate College of Marine Studies, Sussex County, Lewes, DE.

B.S., June 1990, Biology. Lafayette College, Northampton County, Easton, PA.

PROFESSIONAL EMPLOYMENT:

Appointment Effective March 2022: Chief Scientific Officer, Gulf of Maine Research Institute, Portland, ME
40 hrs/wk

Lead a multidisciplinary team of marine research scientists to better understand and steward the Gulf of Maine ecosystem. Develops scientific priorities in response to emerging marine resource and environmental challenges. Apply a whole-ecosystem approach to the development of scientific research to detect, understand, and respond to environmental change. Use synthesis science to develop comprehensive and creative solutions to marine ecosystem issues at the local, national, and international levels.

2014-2022: Supervisory Research Fisheries Biologist, NOAA/Alaska Fisheries Science Center, Recruitment Processes/EcoFOCI Program, Seattle, WA
40 hrs/wk

Program Manager for the NOAA/Alaska Fisheries Science Center's Recruitment Processes Program and co-lead for the Ecosystems and Fisheries Oceanography Coordinated Investigations (EcoFOCI) Program and the Recruitment Processes Alliance. These programs take a mechanistic approach to understanding how climate and ecosystem shifts mediate fisheries recruitment dynamics in Alaskan waters, with a focus on those events that affect fish during the vulnerable first year of life. I directly oversee a staff of ~20 full-time federal employees, 2-4 federal contractors, 2-3 postdoctoral associates, 2-3 students. Oversee Program operational budget ~\$1-5M annually. Oversee all IT, resourcing, field activities, laboratory activities, personnel actions, acquisitions, facilities, etc.

2013-present: Affiliate Assistant Professor, Oregon State University, Department of Fisheries and Wildlife. Corvallis, OR.

Ad hoc

Collaborate with faculty. Serve on graduate student committees.

2004-present: Affiliate Assistant Professor, University of Washington, School of Aquatic and Fishery Sciences. Seattle, WA.

Ad hoc

Collaborate with faculty. Serve on graduate student committees. Offer class lectures.

2001-2014: Research Fisheries Biologist, NOAA/Alaska Fisheries Science Center, Seattle, WA.
40 hrs/wk

Project Leader: Ichthyoplankton Dynamics Project (Recruitment Processes /EcoFOCI Program). Oversee a project team of 4-5 scientific personnel. Investigate dynamic relationships between ichthyoplankton and the environment. Conduct process-oriented studies of spatial, temporal, and ontogenetic factors influencing distribution and abundance of fish larvae in arctic and sub-arctic ecosystems. Examine responses of the North Pacific ichthyoplankton community to environmental perturbations.

1999-2001: Postdoctoral Research Associate, University of Washington/JISAO; NOAA/NMFS Alaska Fisheries Science Center, Seattle, WA.

Examined shifts in feeding ecology of larvae walleye pollock (*Theragra chalcogramma*) due to density-dependent competitive interactions.

40 hrs/wk

1996-1999: Postdoctoral Research Fellow, Rutgers University, Tuckerton, NJ.

Determined the impacts of municipal piers on feeding and growth of juvenile winter flounder (*Pseudopleuronectes americanus*), tautog (*Tautoga onitis*), and Atlantic tomcod (*Microgadus tomcod*) in the lower Hudson River. Examined the impact of submerged structures on distribution of juvenile fishes and crustaceans in the New York-New Jersey Harbor Estuary.

40 hrs/wk

1996-1998: Adjunct Professor, University of Delaware, Newark, DE.

20 hrs/wk

Taught graduate and undergraduate marine science and biology courses.

1991-1996: Graduate Research Assistant, University of Delaware, Lewes, DE.

40 hrs/wk

Designed and conducted a series of experiments examining growth and mortality of drum fish larvae. Examined the effects of larval density and prey abundance on larval weakfish (*Cynoscion regalis*). Examined the predation potentials of three scyphozoans on larval red drum (*Sciaenops ocellatus*).

LEADERSHIP:

- 2022-present: NERACOOS. Member, Board of Directors. Working to advance ocean observing, identify emerging issues, increase coordination across agencies and regions, and increase public access to data
- 2020-2022: DFO-NMFS Climate and Fisheries Collaboration Network Arctic Working Group Lead. International, inter-agency collaboration to better track, understand, and respond to the impacts of climate variability and change on marine resources, ecosystems, and fisheries.
- 2016-2021: Bering Sea Team Lead
Lead for researchers examining ecosystem changes in the Bering Sea and Northern Bering Sea.
- 2015-present: Recruitment Processes Program, Program Manager.
See above (Professional Employment)
- 2015-present: Liaison for AFSC Bering Sea Climate Strategy
Part of a multi-disciplinary team of researchers and managers that drafted documentation of NOAA/AFSC research priorities and goals in the Bering Sea (Bering Sea Strategic Plan).
- 2012-present: Steering Committee Chair, International Flatfish Symposium
- 2013-present: Ecosystems and Fisheries Oceanography Coordinated Investigations (EcoFOCI) Program Scientific Lead and Principal Investigator
Provide guidance and mentoring to group of 20+ scientific personnel in research questions related to fish early life-zooplankton-ocean dynamics in arctic and subarctic seas. Group research areas include fish development, feeding, growth, condition, distribution, abundance, time-series, community ecology, zooplankton ecology, oceanography, modeling, seasonality, energy transfer, predator-prey interactions, community shifts, and recruitment.
- 2009-present: Ecosystems and Fisheries Oceanography Coordinated Investigations (EcoFOCI) Program Liaison for AFSC Loss of Sea Ice (LOSI) Research (N Bering, Chukchi, Beaufort Seas)
Collaborate with multi-disciplinary team of researchers to examine factors influencing ecosystem changes in the arctic. Research includes shifting lower trophic level dynamics, spatial and temporal shifts in fish populations, and effects at upper trophic levels including cetaceans, pinnipeds, and seabirds. Coordinate and consult with local communities and user groups.
- 2006: Organizer. 3-day workshop to develop Strategic Plan for Program. Participant.
- 2005-2013: Field Operations Liaison, Recruitment Processes Program.
Provided scientific oversight for field program activities. Led responsibility for all AFSC Recruitment Processes field operations involving 5 different fishery and oceanographic research vessels (NOAA, Coast Guard, UNOLS, charter). Managed all field operations, providing scientific oversight for staffing (~600 person sea days annually), sampling needs, gear requirements, and ship-scientific party interactions (standard operating instructions, cruise instructions, coordination to procure scientific research permits, cruise reports, data dissemination). Responsible for all future Recruitment Processes ship time requests, and main

Recruitment Processes point of contact for PMEL, NMFS Science and Technology, RACE Division, and the AFSC Ship and Aircraft Coordinator, OMAO.

- 2002-2016: Larval Fish Database Liaison, Recruitment Processes Program. NOAA/Alaska Fisheries Science Center, Seattle, WA.
Provide scientific oversight for proper use and reporting of ichthyoplankton abundance and distribution data collected by the NOAA/Recruitment Processes Program in the Gulf of Alaska and Bering Sea. Point of contact for all external requests for AFSC ichthyoplankton data.
- 2001-2006: Coordinator, FOCI Seminar Series

OPERATIONAL EXPERIENCE:

- **At Sea:** Gulf of Alaska, Bering Sea, Chukchi Sea, Delaware Bay, Chesapeake Bay (>30 months cumulative time at sea). Typically serve as Chief Scientist. Served aboard NOAA vessels, USCG vessels, UNOLS fleet, commercial charters. Responsible for all vessel requests (PASS). Primary liaison with OMAO.
- **Facilities/Property:** Oversight of office, lab spaces for Program. Coordination of on-site spaces – warehouses, hangars, etc. Coordination of remote space use – Kodiak, AK; Dutch Harbor, AK; Newport OR; inclusive of renovations, temporary storage, demolition, etc. Oversight of all Program property uses
- **Budget:** Oversight Program’s portion of NOAA operational budget (~\$1-2M annually), reimbursable grants (~\$1-3M annually), all reporting, reconciliation, MARS. Routine coordination with OMI staff for budget execution and implementation.
- **General Administration:** Time and Attendance, Purchasing, Contracting, Security/Safety, Training, Hiring, Performance plans/reviews, Ratings, Staff oversight, PARR
- **Scientific Operations:** Activity Plans, Milestones, Program reviews, Strategic planning, Communication (including media), Initiatives

FISHERIES MANAGEMENT EXPERIENCE:

- **NOAA Fisheries:** Routinely coordinate with, contribute to, present to, respond to, stock assessors (single, multispecies), Ecosystem Status Reports, Ecosystem Socio-economic Profiles, Plan Teams, North Pacific Fishery Management Council, NOAA Fisheries HQ
- **AK State Fisheries:** Coordinate with State colleagues on issues such as bycatch, conservation, field work, data (collection, reporting, analyses)
- **Stakeholders:** Communication and transparency with industry partners, local communities, native communities and tribal governments, NGOs, international treaty bodies (esp. arctic)

HONORS AND AWARDS:

2021: PICES – Ocean Monitoring Award, Observational Science Excellence
 2021: NOAA/AFSC – NOAA Performance Award (recognition for exemplary year)
 2020: NOAA/AFSC – NOAA Performance Award
 2019: NOAA/AFSC – NOAA Performance Award
 2018: NOAA/AFSC – NOAA Performance Award
 2016: NOAA/AFSC – NOAA Performance Award
 2015: NOAA/AFSC – Dept. of Commerce Gold Medal, Scientific Achievement
 2014: NOAA/AFSC – NOAA Promotion; Science, Supervisory
 2013: NOAA/AFSC – NOAA Performance Award
 2012: NOAA/AFSC – NOAA Employee of the Year, AFSC
 2010: NOAA/AFSC – NOAA Performance Award
 2009: NOAA/AFSC – NOAA Performance Award
 2007: NOAA/AFSC – NOAA Performance Award
 2006: NOAA/AFSC – NOAA Promotion, Science, Principal Investigator
 2005: NOAA/AFSC – NOAA Quality Step Increase (recognition for exemplary work)
 2003: NOAA/AFSC – NOAA Performance Award
 2002: NOAA/AFSC – Dept. of Commerce Bronze Medal, Scientific Achievement
 2002: NOAA/AFSC – NOAA Quality Step Increase
 1996: Francis Severance Award
 (Outstanding doctoral dissertation, College of Marine Studies, University of Delaware)
 1996: Academic Council Award
 (Outstanding doctoral dissertation, Department of Marine Biology/Biochemistry, University of Delaware)
 1995: Marion Oakey Fellowship (Outstanding female scholar, College of Marine Studies, University of Delaware)

PUBLICATIONS (Refereed Journal Articles and Book Chapters):
 (1659 Citations, h-index = 22; ResearchGate January 2022)

- 85.** Axler, K.E., Goldstein, E.D., Nielsen, J.M., Deary, A.L., and Duffy-Anderson, J.T. In review. Climate-mediated drivers of the distributions and abundances of larval fish assemblages in a warming Pacific Arctic. *Global Change Biology*.
- 84.** Spear, A. Andrews, A., **Duffy-Anderson, J.T.**, Jarvis, T., Kimmel, D., and McKelvey, D. In review. Changes in vertical distribution of Age-0 Walleye Pollock (*Gadus chalcogrammus*) during warm and cold Years in the southeastern Bering Sea. *Fisheries Oceanography*.
- 83.** Lefebvre, K., and 20 co-authors. 2022. Paralytic shellfish toxins in Alaskan Arctic food webs during the anomalously warm ocean conditions of 2019 and estimated toxin doses to Pacific walrus and bowhead whales. *Harmful Algae*.
- 82.** Tabisola, H.M., **J.T. Duffy-Anderson**, C.W. Mordy, and P.J. Stabeno. 2021. EcoFOCI: A generation of ecosystem studies in Alaskan waters. Pp. 34–35, in *Frontiers in Ocean Observing: Documenting Ecosystems, Understanding Environmental Changes, Forecasting Hazards*. E.S. Kappel, S.K. Juniper, S. Seeyave, E. Smith, and M. Visbeck, eds, A Supplement to *Oceanography* 34(4), <https://doi.org/10.5670/oceanog.2021.supplement.02-15>.

81. NOAA Fisheries Climate Science Strategy Five Year Progress Report Jay Peterson and Roger Griffis (Editors). Contributing Authors: Woodworth-Jefcoats, P., Jacobs, A., Hollowed, A., Farley, E. **Duffy-Anderson, J.**, Dorn, M., Hurst, T., Moss, J., Rogers, L., Shotwell, K., Garfield, T., Zabel, R., deReynier, Y., Shott, E., Crozier, L., Bograd, S., Mantua, N., Samhouri, J., Quinlan, J., Gore, K., Muñoz, R., Leo, J., Waters, L., Burton, M., Saba, V., Borggaard, D., Ferguson, M., and Morrison, W. NOAA Technical Memorandum NMFS-F/SPO-228 December 2021.
80. **Duffy-Anderson, J.T.**, Deary, A., LePape, O., Juanes, F. *Early Life History*. In Fish Ecology. (Le Paper and Cabral, Eds.). In progress.
79. Litzow, M., Malick, M.J., Abookire, A., **Duffy-Anderson, J.T.**, Laurel, B., Ressler, P., and Rogers, L. Using a climate attribution statistic to inform judgments about changing fisheries sustainability. *Nature: Scientific Reports*. (2021) 11:23924.
<https://doi.org/10.1038/s41598-021-03405-6>
78. Litzow, M., Abookire, A.A., **Duffy-Anderson, J.T.** Laurel, B.J., Malick, M.J., and Rogers, L.A. Accepted. Predicting year class strength for climate-stressed gadid stocks in the Gulf of Alaska. *Fisheries Research*.
77. Ferm, N., Hurst, T., and **Duffy-Anderson, J.T.** 2021. Foraging habits and dietary overlap of juvenile yellowfin sole and northern rock sole in a Bering Sea coastal nursery. *US Fishery Bulletin*. 120: 1-12.
76. Laurel, B., Hunsicker, M., Ciannelli, L., Hurst, T., **Duffy-Anderson, J.T.**, O'Malley, R., and Behrenfeld, M. 2021. Regional warming exacerbates match/mismatch vulnerability for cod larvae in Alaska. *Progress in Oceanography*. 193 (2021) 102555.
75. Hop, H., and 13 co-authors. The future of arctic cod and its ecosystem. In progress.
74. Nielsen, J., Rogers, L.A., Brodeur, R., Thompson, A., Auth, T., Deary, A. **Duffy-Anderson, J.T.**, Galbraith, M., Koslow, A., and Perry, I. 2020. Responses of ichthyoplankton assemblages to the recent marine heatwave and previous climate fluctuations in several Northeast Pacific marine ecosystems. *Global Change Biology*. DOI: 10.1111.gcb.15415
73. Sadorus, L., Goldstein, E., Webster, R., Stockhausen, W., Planas, J., and **Duffy-Anderson, J.T.** 2020. Multiple life stage connectivity of Pacific halibut (*Hippoglossus stenolepis*) across the Bering Sea and Gulf of Alaska. *Fisheries Oceanography*. 2020 (00): 1-20, DOI: 10.1111/fog.12512
72. Rogers, L.A., Wilson, M.T., **Duffy-Anderson, J.T.**, and Lamb, J.F. 2020. Pollock and the Blob: Impacts of a marine heatwave on walleye pollock early life stages. *Fisheries Oceanography*. DOI: 10.1111/fog.12508.
71. Deary, A.L., Vestfals, C.D., Logerwell, E.A., Stabeno, P.J., Danielson, S.L., Mueter, F.J., **Duffy-Anderson, J.T.** 2021. Seasonal abundance, distribution, and growth of the early life stages of Polar Cod (*Boreogadus saida*) and Saffron Cod (*Eleginus gracilis*) in the US Arctic during a warm year. *Polar Biology*. <https://doi.org/10.1007/s00300-021-02940-2>

70. Goldstein, E., Pirtle, J., **Duffy-Anderson, J.T.**, Stockhausen, W., Zimmerman, M., Mordy, C. 2020. Eddy retention and seafloor terrain facilitate cross-shelf transport and delivery of fish larvae to suitable nursery habitats. *Limnology and Oceanography*. doi: 10.1002/lno.11553
69. Litzow, M., Hunsicker, M., Ward, E. Anderson, S., Gao, J., Zador, S., Batten, S., Dressel, S., **Duffy-Anderson, J.T.**, Ferguson, E., Hopcroft, R., Laurel, B., O'Malley, R. 2020. Evaluating ecosystem change as Gulf of Alaska temperature exceeds the limits of preindustrial variability. *Progress in Oceanography*. 186(2020) 102393. <https://doi.org/10.1016/j.pocean.2020.102393>
68. Kimmel, D.G. and **J.T. Duffy-Anderson**. 2020. Zooplankton abundance trends and patterns in Shelikof Strait, western Gulf of Alaska USA 1990-2017. *Journal of Plankton Research*. 42(3): 334–354. doi:10.1093/plankt/fbaa019
67. Nielsen, J.M., L.A. Rogers, D.G. Kimmel, A.L. Deary, **J.T. Duffy-Anderson**. 2019. The contribution of fish eggs to the Gulf of Alaska food web in spring. *Marine Ecology Progress Series*. 632: 1-12.
66. **Duffy-Anderson, J.T.**, Stabeno, P., Andrews, A., Cieciel, K., Deary, A., Farley, E., Fugate, C., Harpold, C., Heintz, R., Kimmel, D., Kuletz, K., Lamb, J., Paquin, M., Porter, S., Rogers, L., Spear, A., Yasumiishi, E. 2019. Responses of the Northern Bering Sea and Southeastern Bering Sea pelagic ecosystems following record-breaking low winter sea ice. *J. Geophysical Research Letters*. doi: 10.1029/2019GRL083396.
65. Goldstein, E.D. Pirtle, J.L., **Duffy-Anderson, J.T.**, Stockhausen, W., Zimmerman, M., Wilson, M.T., and Mordy, C.W. 2020. Eddy retention and seafloor terrain facilitate cross-shelf transport and delivery of fish larvae to suitable nursery habitats. *Limnology and Oceanography*. DOI: 10.1002/lno.11553
64. Vestfals, C., Mueter, F., **Duffy-Anderson, J.T.**, Busby, M. and De Robertis, A. 2019. Spatio-temporal distribution of polar cod (*Boreogadus saida*) and saffron cod (*Eleginus gracilis*) early life stages in the Pacific Arctic. *Polar Biology*. <https://doi.org/10.1007/s00300-019-02494-4>.
63. Spear, A., **Duffy-Anderson, J.T.**, Kimmel, D., Napp, J., Randall, J., and Stabeno, P. 2019. Physical and biological drivers of zooplankton communities in the Chukchi Sea. *Polar Biology*. <https://doi.org/10.1007/s00300-019-02498-0>.
61. Deary, A., Porter, S., Dougherty, A., and **Duffy-Anderson, J.T.** 2019. Preliminary observations of the skeletal development in pre-flexion larvae of sablefish *Anoplopoma fimbria*. *Ichthyological Research*. DOI 10.1007/s10228-018-0657-0.
60. Logerwell, E., Busby, M., Mier, K., Tabisola, H. and **Duffy-Anderson, J.T.**, 2020. The effect of oceanographic variability on the distribution of larval fishes of the Northern Bering and Chukchi Seas. *Fisheries Oceanography*. <https://doi.org/10.1016/j.dsr2.2020.104784>
59. Goldstein, E., **Duffy-Anderson, J.T.**, Matarese, A., and Stockhausen, W. 2018. Larval fish communities in the eastern and western Gulf of Alaska: patterns, drivers, and implications for connectivity. *Deep Sea Research II: Topics in Oceanography*. <https://doi.org/10.1016/j.dsr2.2018.09.003>.

58. Kimmel, D., Eisner, L., Wilson, M., and **Duffy-Anderson, J.T.** 2018. Copepod dynamics across warm and cold periods in the eastern Bering Sea: Implications for walleye pollock (*Gadus chalcogrammus*) and the Oscillating Control Hypothesis. *Fisheries Oceanography*. DOI: 10.1111/fog.12241
57. Shelton, A. O., Hunsicker, M., Ward, E., Feist, B., Blake, R., Ward, Williams, B., **Duffy-Anderson, J.T.**, Hollowed, A.B., and Haynie, A. 2017. Spatio-temporal models reveal subtle changes to demersal communities following the Exxon Valdez oil spill. *ICES Journal Marine Science*. <https://doi.org/10.1093/icesjms/fsx079>
56. Marshall, K., **Duffy-Anderson, J.T.**, Ward, E., Hunsicker, M., and Williams, B. 2018. Long term trends in ichthyoplankton assemblage structure, biodiversity, and community synchrony in the Gulf of Alaska and their relationships to climate. *Progress in Oceanography*. 170: 134-145.
55. Siddon, E.C., **Duffy-Anderson, J.T.**, Mier, K.L., Busby, M., and Eisner, L. 2017. Seasonal, interannual, and spatial patterns of community composition over the eastern Bering Sea shelf in cold years. Part II: ichthyoplankton and juvenile fish. *ICES Journal of Marine Science*. <https://doi.org/10.1093/icesjms/fsx123>
54. **Duffy-Anderson, J.T.**, Stabeno, P.J., Siddon, E.C., Andrews, A., Cooper, D., Eisner, L., Farley, E., Harpold, C., Heintz, R., Kimmel, D., Sewall, F., Spear, A., and Yasumishii, E. 2017. Return of warm conditions in the southeastern Bering Sea: phytoplankton- fish. *PLOS ONE*. <https://doi.org/10.1371/journal.pone.0178955>
53. Stabeno, P.J., **Duffy-Anderson, J.T.**, Eisner, L., Farley, E.D., Heintz, R., Mordy, C. 2017. Return of warm conditions in the eastern Bering Sea: physics to fluorescence. *PLOS ONE*. <https://doi.org/10.1371/journal.pone.0185464>
52. Ryer, C., Ottomar, M., Spencer, M., **Duffy-Anderson, J.T.**, and Cooper, D. 2016. Temperature-dependent growth of early juvenile tanner crab: implications for Cold Pool effects and climate change in the southeastern Bering Sea. *Journal of Shellfish Research*. 35: 1-9.
51. Sohn, D., Ciannelli, L., and **Duffy-Anderson, J.T.** 2016. Distribution of early life Pacific halibut and comparison with Greenland halibut in the eastern Bering Sea. *Journal of Sea Research*. 107: 31-42.
50. Berghahn, R., **Duffy-Anderson, J.T.**, and Loher, T. 2016. The Fine Nine: International Symposia on Flatfish Ecology 1990-2014. *Journal of Sea Research*. 107: 3-5.
49. Wilderbuer, T., **Duffy-Anderson, J.T.**, Hermann, A., and Stabeno, P.J. 2016. Drift and divergence in the EBS with implications for flatfish on-shelf recruitment. *Journal of Sea Research*. 111: 11-24.
48. McClatchie, S., **Duffy-Anderson, J.T.**, Field, J.C., Goericke, R., Griffith, D., Hanisko, D.S., Hare, J., Lyczkowski-Shultz, J., Peterson, W., Watson, W., Weber, E.D., and Zapfe, G. 2015. Long time series in US fisheries oceanography. *Oceanography*. 27(4): 48-67.

47. Sheffield Guy, L., **Duffy-Anderson, J.T.**, Matarese, A., Mordy, C., Napp, J.M., and Stabeno, P.J. 2015. Understanding climate control of fisheries recruitment in the eastern Bering Sea: Long-term measurements and process studies. *Oceanography*. 27(4): 90-103.
46. Petrik, C., **Duffy-Anderson, J.T.**, Castruccia, F., Curchitser, E., Danielson, S., Hedstrom, K., and Mueter, F. 2016. Modeling connectivity between walleye pollock spawning and age-0 nursery areas in warm and cold years with implications for juvenile survival. *ICES J. Marine Science*. doi: 10.1093/icesjms/fsw004
45. Logerwell, E., Busby, M., Carothers, C., Cotton, C., **Duffy-Anderson, J.T.**, Farley, E., Goddard, P., Heintz, R., Horne, J., Parker-Stetter, S., Johnson, S., Lauth, R., Moulton, L., Neff, D., Norcross, B., Seigle, J., and Sformo, T. 2015. Fish communities across a spectrum of habitats in the Beaufort and Chukchi Seas. *Progress in Oceanography*. 136: 115-132.
44. Petrik, C., **Duffy-Anderson, J.T.**, Mueter, F.J., Hedstrom, K., and Curchitser, E. 2015. Modeling the effect of climate variations on the transport and distribution of walleye pollock early life stages in the eastern Bering Sea. *Progress in Oceanography*. 138: 459-474.
43. Sohn, D., Ciannelli, L., **Duffy-Anderson, J.T.**, Batchelder, H., Stockhausen, W., and Vestfals, C. Predicting settlement success of two slope-spawning flatfish in the eastern Bering Sea. *Marine Ecology Progress Series*.
42. Hurst, T.H., Cooper, D.W., **Duffy-Anderson, J.T.**, and Farley, E. 2015. Contrasting coastal and shelf nursery habitats of Pacific cod in the southeastern Bering Sea. *ICES J. Mar. Sci.* 72(2): 515-527.
41. **Duffy-Anderson, J.T.**, Barbeaux, S., Farley, E., Heintz, R., Horne, J., Parker-Stetter, S., Petrik, C., Siddon, E.C., and Smart, T.I. 2015. An ecological synthesis of the first year of life of walleye pollock (*Gadus chalcogrammus*) in the eastern Bering Sea. *Deep Sea Research II: Topical Studies in Oceanography*. 134: 283-301. doi: 10.1016/j.dsr2.2015.02.001
40. **Duffy-Anderson, J.T.**, Bailey, K.M., Cabral, H., Nakata, H., and van der Veer, H. 2015. The planktonic stages of flatfishes: physical and biological interaction in transport process. In: Gibson, R. (Ed). *Flatfishes: Biology and Exploitation*. Oxford University Press. Pp. 132-170.
39. Busby, M., **Duffy-Anderson, J.T.**, Mier, K.L., and De Forest, L. 2014. Spatial and temporal patterns in summer ichthyoplankton assemblages on the eastern Bering Sea shelf 1996–2007. *Fisheries Oceanography*. 23(3): 270-287.
38. Vestfals, C., Ciannelli, L., Ladd, C. and **Duffy-Anderson, J.T.** 2014. Effects of seasonal and interannual variability in along-shelf and cross-shelf transport on groundfish recruitment in the eastern Bering Sea. *Deep Sea Research II: Topical Studies in Oceanography*. 109: 190-203.
37. De Forest, L., **Duffy-Anderson, J.T.**, Heintz, R., Matarese, A.M., Siddon, E., Smart, T. and Spies, I. 2014. Ecology and taxonomy of the early life stages of arrowtooth (*Atheresthes stomias*) and Kamchatka (*Atheresthes evermanni*) flounder in the eastern Bering Sea. *Deep Sea Research II: Topics in Oceanography*. 109: 181-189.

36. Cooper, D., **Duffy-Anderson, J.T.**, Norcross, B., Holladay, B., and Stabeno, P. 2014. Northern rock sole (*Lepidopsetta polyxystra*) nursery areas in the eastern Bering Sea. *ICES J Marine Science*. 71(7): 1682-1695. doi:10.1093/icesjms/fst210
35. Smart, T., **Duffy-Anderson, J.T.**, and Siddon, E. 2014. Vertical distribution of early life stages of walleye pollock and implications for transport and connectivity. *Deep Sea Research II: Topical Studies in Oceanography*. 94: 201-201.
34. Cooper, D., Stockhausen, W., and **Duffy-Anderson, J.T.** 2013. Dispersal of northern rock sole (*Lepidopsetta polyxystra*) from spawning to nursery areas in the eastern Bering Sea. *J. Sea Research*. 84: 2-12.
33. **Duffy-Anderson, J.T.**, Blood, D.M., Cheng, W., Ciannelli, L., Matarese, A., Sohn, D., Stabeno, P., Vance, T., and Vestfals, C. 2013. Combining field observations and modeling approaches to examine Greenland halibut (*Reinhardtius hippoglossoides*) early life ecology in the southeastern Bering Sea. *J. Sea Research*. 75: 96-109.
32. Siddon, E. C., **Duffy-Anderson, J.T.**, and Mueter, F. 2011. Community-level response of ichthyoplankton to environmental variability in the eastern Bering Sea. *Mar. Ecol. Prog. Ser.* 426: 225-239.
31. Smart, T., **Duffy-Anderson, J.T.**, Horne, J. 2012. Alternating climate states influence walleye pollock life stages in the southeastern Bering Sea. *Mar. Ecol. Prog. Ser.* 455: 257-267.
30. Smart, T., **Duffy-Anderson, J.T.**, Horne, J., Farley, E., Wilson, C., and Napp, J. 2012. Influence of environment on walleye pollock eggs, larvae, and juveniles in the Southeastern Bering Sea. *Deep Sea Res. II: Topical Studies in Oceanography*. 65-70: 196-207.
29. **Duffy-Anderson, J.T.**, Blood, D.M., and Mier, K.L. 2011. Stage-dependent vertical distribution of Alaska plaice (*Pleuronectes quadrituberculatus*) eggs in the eastern Bering Sea. *Fish Bull. US*. 109: 162-169.
28. Sohn, D., Ciannelli, L., **Duffy-Anderson, J.T.** 2010. Distribution and potential drift pathways of Greenland halibut (*Reinhardtius hippoglossoides*) during early life stages in the Bering Sea. *Fish. Oceanogr.* 19(5): 339-353.
27. Atwood, E., **Duffy-Anderson, J.T.**, Ladd, C. and Horne, J. 2010. Influence of mesoscale eddies on abundance and distribution of ichthyoplankton in the Gulf of Alaska. *Fish. Oceanogr.* 19:6: 493-507.
26. Logerwell, E., **Duffy-Anderson, J.T.**, and Wilson, M.T. 2010. The physical and biological processes resulting in habitat partitioning by two potential competitors, juvenile pollock and capelin, in the Gulf of Alaska. *Fish. Oceanogr.* 19(4): 262-278.
25. **Duffy-Anderson, J.T.**, Doyle, M., Mier, K., and Stabeno, P. 2010. Early life ecology of Alaska plaice (*Pleuronectes quadrituberculatus*) in the eastern Bering Sea: seasonality, distribution, and transport pathways. *J. Sea Res.* 64: 3-14.

24. Bacheiler, N., Ciannelli, L., Bailey, K.M., and **Duffy-Anderson, J.T.** 2010. Spatial and temporal patterns of walleye pollock spawning in the eastern Bering Sea inferred from egg and larval distributions. *Fish. Oceanogr.* 19: 107-120.
23. Bailey, K.M., Abookire, A.A., and **Duffy-Anderson, J.T.** 2008. Pathways in the sea: a comparison of spawning areas, larval advection patterns and juvenile nurseries of offshore spawning flatfishes in the Gulf of Alaska. *Fish and Fisheries.* 9:44-66.
22. Jump, C.M., **Duffy-Anderson, J.T.**, and Mier, K.L. 2008. Comparison of neustonic ichthyoplankton samplers in the Gulf of Alaska. *Fish. Res.* 89(3): 222-229.
21. Boeing, W.J. and **Duffy-Anderson, J.T.** 2008. Ichthyoplankton dynamics and biodiversity in the Gulf of Alaska: responses to environmental change. *Ecol. Indicators.* 8: 292-302
20. Lanksbury, J.A., **Duffy-Anderson, J.T.**, Busby, M., Stabeno, P.J. and Mier, K.L. 2007. Abundance and distribution of northern rock sole (*Lepidopsetta polyxystra*) larvae in relation to oceanographic conditions in the Eastern Bering Sea. *Prog. in Oceanogr.* 72: 39-62.
19. Abookire, A., **Duffy-Anderson, J.T.**, and Jump, C.M. 2007. Habitat associations and diet of juvenile Pacific cod, *Gadus macrocephalus* in Chiniak Bay, Alaska. *Mar. Biol.* 150(4): 713-726.
18. Boeing, W., Martin, M., and **Duffy-Anderson, J.T.** 2007. Groundfish: status and mechanisms of change. In: *Long-term Ecological Change in the Northern Gulf of Alaska.* Spies, R. (ed.) Elsevier. Pp.300-311.
17. Wilson, M.T., Jump, C.M., and **Duffy-Anderson, J.T.** 2006. Comparative analysis of the feeding ecology of energy-rich and energy-poor forage fishes: capelin (*Mallotus villosus*) versus walleye pollock (*Theragra chalcogramma*). *Mar. Ecol. Prog. Ser.* 317: 345-358.
16. Able, K.W. and **Duffy-Anderson, J.T.** 2006. Impacts of piers on juvenile fishes in the lower Hudson River. Pp. 428-440. In: *The Hudson River Estuary.* Levinton, J. S. and J. Waldman (Eds.). Cambridge University Press. New York, NY. 465 pp.
15. **Duffy-Anderson, J.T.**, Busby, M., Mier, K., Deliyanides, C., and Stabeno, P.J. 2006. Spatial and temporal patterns in summer ichthyoplankton assemblages on the eastern Bering Sea shelf 1996-2000. *Fish. Oceanogr.* 15(1): 80-94.
14. Ciannelli, L., Hjermann, D.Ø., Lehodey, P., Ottersen, G., **Duffy-Anderson, J.T.**, and Stenseth, N.C. 2005. Climate forcing, food web structure and community dynamics in pelagic marine ecosystems. Pp. 143-169. In: *Aquatic Food Webs: An Ecosystem Approach.* Belgrano, A., Scharler, U., Dunne, J., and Ulanowicz, R. (eds). Oxford University Press. 254 pp.
13. Lanksbury, J.A., **Duffy-Anderson, J.T.**, Mier, K. L., and Wilson, M.T. 2005. Ichthyoplankton abundance, distribution, and assemblage structure in the Gulf of Alaska in 2000 and 2001. *Est. Coast. Shelf Sci.* 64 (4): 775-785.
12. **Duffy-Anderson, J.T.**, Bailey, K. M., Ciannelli, L., Cury, P., Belgrano, A., and Stenseth, N.C. 2005. Phase transitions and climate-environmental variability in marine fish recruitment processes. *Ecol. Complexity.* 2 (3): 143-169.

11. **Duffy-Anderson, J.T.**, Manderson, J.P. and Able, K.W. 2003. A characterization of juvenile fish assemblages around man-made structures in the New York-New Jersey Harbor estuary, USA. *Bull. Mar. Sci.* 72 (3): 877-889.
10. Bailey, K.M., Brown, E., and **Duffy-Anderson, J.T.** 2003. Aspects of distribution, transport and recruitment of Alaska plaice (*Pleuronectes quadrituberculatus*) in the Gulf of Alaska and Bering Sea: comparison of marginal and central populations. *J. Sea Research.* 50 (2-3): 87-95.
9. **Duffy-Anderson, J.T.**, Ciannelli, L., Honkalehto, T. Bailey, K.M., Sogard, S.M., Springer, A. and Buckley, T. 2003. Distribution of age-1 and age-2 walleye pollock in the Gulf of Alaska and Eastern Bering Sea: sources of variation and implications for higher trophic levels. Pp. 381-394. In: *The Big Fish Bang: Proceedings from the 26th Annual Larval Fish Conference.* Browman, H and A. Skiftesvik (eds.).
8. **Duffy-Anderson, J.T.**, Bailey, K.M., and Ciannelli, L. 2002. Consequences of a superabundance of larval walleye pollock (*Theragra chalcogramma*) in the Gulf of Alaska in 1981. *Mar. Ecol. Prog. Ser.* 243: 179-190.
7. Doyle, M.J., Busby, M. S., **Duffy-Anderson, J.T.**, Matarese, A.C. and Picquelle, S. J. 2002. Early life history of capelin (*Mallotus villosus*) in the Northwest Gulf of Alaska: A historical perspective based on larval collections 1977-79. *ICES J. Mar. Sci.* 59: 997-1005.
6. Bailey, K.M. and **Duffy-Anderson, J.T.** 2001. Fish: Predation and Mortality. In: *Encyclopedia of Ocean Sciences.* Blaxter, J. H. S. (ed.). Academic Press. Pp. 961-968.
5. **Duffy-Anderson, J. T.** and Able, K.W. 2001. An assessment of the feeding success of young-of-the-year winter flounder (*Pseudopleuronectes americanus*) near a municipal pier in the Hudson River estuary, USA. *Estuaries.* 24(3): 430-440.
4. **Duffy-Anderson, J. T.** and Able, K.W. 1999. The effects of municipal piers on growth of juvenile fishes in the lower Hudson River: a study across a pier edge. *Mar. Biol.* 133: 409-418.
3. **Duffy, J. T.**, Epifanio, C.E., and Fuiman, L.A. 1997. Mortality rates imposed by three scyphozoans on red drum (*Sciaenops ocellatus* Linnaeus) larvae in field enclosures. *J. Exp. Mar. Biol. Ecol.* 212: 123-131.
2. **Duffy, J. T.**, Epifanio, C.E., and Cope, J.S. 1996. The effects of prey density on the growth and mortality of weakfish (*Cynoscion regalis* Bloch and Schneider) larvae: an experiment in field enclosures. *J. Exp. Mar. Biol. Ecol.* 202 (2): 191-203.
1. **Duffy, J. T.** and Epifanio, C.E. 1994. The effects of larval density on the growth and survival of weakfish larvae (*Cynoscion regalis*) in large-volume enclosures. *Mar. Ecol. Prog. Ser.* 104: 227-233.

POSTDOCTORAL SUPERVISORY ACTIVITIES:

2017 - 2020. Dr. Jens Nielsen, Postdoctoral Associate. National Research Council. Pan-Pacific ichthyoplankton responses to climate change. Co-advisor: L. Rogers, AFSC.

2016 - 2020. Dr. Esther Goldstein, Postdoctoral Associate. National Research Council. Spatial and temporal shifts in biodiversity of ichthyoplankton in the Gulf of Alaska. Co-advisor: A. Matarese AFSC.

2016 - 2018. Dr. Peter Davison, Postdoctoral Associate. National Research Council. Ichthyoplankton as metrics of climate change along the US west coast from California to Alaska. Co-advisors: J.T. Koslow, UCSD; R. Brodeur, NWFSC.

2012 - 2013. Dr. Colleen Petrik, Postdoctoral Associate. University of AK, Fairbanks. Walleye pollock larval distribution over the eastern Bering Sea shelf: a biophysical model of dispersal. Co-advisor: F. Mueter, UAF, School of Fishery and Ocean Sciences.

2009 - 2011. Dr. Tracey Smart, Postdoctoral Associate. University of WA. Examination of factors affecting spawning, distribution, transport, and habitat use of age-0 gadids in the Eastern Bering Sea. Co-advisor: J. Horne, UW School of Aquatic and Fishery Sciences

2002 - 2004. Dr. Wiebke Boeing, Postdoctoral Associate. JISAO, University of WA. Development of metrics using ichthyoplankton time-series data to assess the impacts of climate change in the North Pacific. Co-advisor: B. Miller, UW School of Aquatic and Fishery Sciences.

STUDENT COMMITEES:

Erin Fedewa, Ph.D., Oregon State University
Cathleen Vestfals, Ph.D. Oregon State University
Dongwha Sohn, M.S., P.D. Oregon State University
Elizabeth Siddon, Ph.D. University of Alaska
Elizabeth Atwood, M.S. University of Washington
Michael Cooksey, M.S. University of Washington
Lucie Weis, M.S. University of Washington
Charles Metzger, Stockton State University
Deborah Vivian, Stockton State University

NEWS ARTICLES and MEDIA:

Duffy-Anderson, J.T. LA Times. Unprecedented die-offs, melting ice: Climate change is wreaking havoc in the Arctic and beyond.

<https://www.latimes.com/environment/story/2021-12-17/north-pacific-arctic-ecosystem-collapse-climate-change>

Duffy-Anderson, J. Bangor Daily News. Climate change is wreaking havoc in the Arctic and beyond. <https://bangordailynews.com/2021/12/23/news/nation/climate-change-is-wreaking-havoc-in-the-arctic-and-beyond/>

Duffy-Anderson, J.T. Comment, E&E News. Abnormally warm years caused a sea change in coastal Alaska ecosystems.

<https://www.scientificamerican.com/article/abnormally-warm-years-caused-a-sea-change-in-coastal->

[alaska-ecosystems/](#)

Duffy-Anderson, J.T. Interview, KNOM Radio. Chukchi and Bering Sea Loss of Sea Ice. August 2019
<https://www.knom.org/wp/blog/2019/08/28/latest-research-from-chukchi-sea-finds-more-warm-water-harmful-algal-blooms/>

Duffy-Anderson, J.T. Bering Sea Loss of Sea Ice, Nome Nugget. August 2019
<http://www.nomenugget.com/news/bering-sea-ecosystem-responds-dramatic-loss-sea-ice>

Duffy-Anderson et al. EOS Spotlight Research. The northern Bering Sea, once isolated from the annual rhythm of ice growth and loss, is experiencing unprecedented winter ice levels

Duffy-Anderson, J.T. Bering Sea Loss of Sea Ice, Seattle Times. Sept 15, 2019
<https://www.seattletimes.com/seattle-news/as-bering-sea-ice-melts-nature-is-changing-on-a-massive-scale-and-alaska-crab-pots-are-pulling-up-cod/>

In Hot Water. *Science Magazine*. February 2019. 363 (2426): 442-445.

Climate drives fish into new waters, remaking and industry. Wall Street Journal. December 2018.
<https://www.wsj.com/articles/climate-change-drives-fish-into-new-waters-remaking-an-industry-11545454860>

Huge puffin die-off may be linked to hotter seas. National Geographic. November 2016.
<http://news.nationalgeographic.com/2016/11/tufted-puffins-die-off-bering-sea-alaska-starvation-warm-water-climate-change/>

Hundreds of dead puffins are mysteriously washing ashore in Alaska. Huffington Post. November, 2016.
http://www.huffingtonpost.com/entry/dead-puffins-st-paul-alaska-climate-change_us_582ea97ce4b099512f823237

A Warming Bering Sea: What Does it Mean for Walleye Pollock? Scientists launch a special cruise to find missing links connecting climate and fisheries. AFSC News. August 31, 2015.
<http://www.afsc.noaa.gov/News/Warming-sea.htm>

Scientists probe effects of unusual warming pattern in fish-rich Bering Sea. Alaska Dispatch News. September 22, 2015. <http://www.adn.com/article/20150922/scientists-probe-effects-unusual-warming-pattern-fish-rich-bering-sea>

A Warming Bering Sea: What does it mean for Alaska pollock and the rest of this productive marine ecosystem? Twitter. @NOAAFisheriesAK #AKWarmWater. October 7, 2015.
<https://storify.com/noaafisheries/noaa-scientists-share-first-hand-account-of-ecosys>

KTVA Radio: <http://www.ktva.com/research-cruise-investigates-bering-sea-warm-spell-305/>

KDLG Radio: <http://kdlg.org/post/research-cruise-investigates-bering-sea-warm-spell>

Seattle Times – November Craig Welch 2016

GRANTS:

- 2020: Expanding exploration and using innovative technologies to assess the rapidly changing Bering and Chukchi Seas. Stabeno, P., Mordy, C., Ladd, C., **Duffy-Anderson, J.T.**, Logerwell, E., Farley, E., Berchok, C. Nielsen, J. NOAA ITAE. \$715K.
- 2019: Bering Sea Regional Action Plan. Spear, A., Kimmel, D., Andrews, A., and **Duffy-Anderson, J.T.** NOAA. \$25K.
- 2017-2018: Understanding climate vs. bycatch on western Chinook salmon abundance trends. Ciecziel, K., Farley, E., **Duffy-Anderson, J.T.**, and Stabeno, P. ADFG. \$240K.
- 2017-2018: New time series indicators of thermal conditions in the Gulf of Alaska. Ferm, N., Rogers, L., Kimmel, D., Wilson, M., and **Duffy-Anderson, J.** NOAA RAP. \$35K.
- 2016-2017: Understanding Ecosystem Change in the Bering Sea: tipping points, oceanographic refuges, and ecosystem vulnerability. **Duffy-Anderson, J.**, Farley, E., Stabeno, P., and Heintz, R. NOAA. \$95K.
- 2015-2020: (annually) The Distributed Biological Observatory. Mordy, C., Stabeno, P., Logerwell, E., **Duffy-Anderson, J.** NOAA OAR Arctic Program Office. \$106K, annually.
- 2015-2017: Arctic Integrated Ecosystem Survey (IES) Phase II: Oceanography and Lower Trophic Level Productivity. Ladd, C., **Duffy-Anderson, J.**, Eisner, L., Mordy, C., Lomas, M., Stabeno, P., McCabe, R. NPRB. \$1.95M.
- 2015-2017: Gulf of Alaska Integrated Ecosystem Research Program: Lower Trophic Level Synthesis. Hopcroft, R., Matarese, A., Strom, S., Stabeno, P., Wilson, M., **Duffy-Anderson.** NPRB. \$700K.
- 2015-2017: Ichthyoplankton metrics as fishery-independent indicators of ecosystem change along the US west coast from California to Alaska. **Duffy-Anderson, J.**, Koslow, J.A., McClatchie, S., Thompson, A., Brodeur, R., Hunsicker, M., and Zador, Stephani. NOAA Fisheries and the Environment (FATE) program. \$213K.
- 2013-2014: Essential fish habitats of juvenile Pacific cod, yellowfin sole, and northern rock sole along the Alaska Peninsula: Part II. Hurst, T., Cooper, D., **Duffy-Anderson, J.T.**, Stoner, A. NOAA/Essential Fish Habitat. \$80K.
- 2012-2013: Essential fish habitats of juvenile Pacific cod, yellowfin sole, and northern rock sole along the Alaska Peninsula: Part I. Hurst, T., Cooper, D., **Duffy-Anderson, J.T.**, Stoner, A. NOAA/Essential Fish Habitat. \$67K.
- 2011-2014: Arctic Ecosystem Integrated Survey. Distribution of Fish, Crab and Lower Trophic Communities in the Chukchi Sea Mueter, F. et al. BOEM. \$1.3M.
- 2011-2013: The variable transport of fish larvae and eggs over the Bering shelf: A marriage of physics and biology. Mueter, F. **Duffy-Anderson, J.T.**, Curchitser, E., and Danielson, S. NSF. \$485K.
- 2009-2012: Retrospective Analysis of Spawning Distribution and Early Life Drift Pathways of

- Greenland halibut and Pacific halibut in the Eastern Bering Sea and Western Gulf of Alaska. Ciannelli, L., **Duffy-Anderson, J.T.**, Loher, T., and Ianelli, J. NPRB. \$231K.
- 2009-2011: Reconstruction of Dispersal Strategies of Marine Organisms via Semiparametric Dynamic Spatial Regression. Chan, K.S., Ciannelli, L., Ladd, C., Decker, M.B., and **Duffy-Anderson, J.T.** NSF. DMS: 0934617. \$302K.
- 2008-2009: *Influence of coastal mesoscale eddies on ichthyoplankton assemblages in the Gulf of Alaska. Atwood, E. (UW). Advisors: **Duffy-Anderson, J.T.**, Ladd, C. (PMEL) and Horne, J. (UW). NPRB. \$20K.
*student grant award
- 2007-2012: Horizontal, vertical, and temporal distribution of larvae and juveniles of walleye pollock, and transport pathways between nursery areas in the Bering Sea. Hillgruber, N., Duffy-Anderson, J.T., Napp, J., Matarese, A., Eisner, L. NPRB-NSF. \$1.1M.
- 2007-2008: Developing Recruitment Indicators for Age-Structured Flatfish Stock Assessments in the Eastern Bering Sea Based on Models of Larval Dispersal. Stockhausen, W., **Duffy-Anderson, J.T.**, Wilderbuer, T., Hermann, A. NOAA. \$89.5K.
- 2006-2008: Connectivity between Greenland halibut (*Reinhardtius hippoglossoides*) spawning and nursery areas in the eastern Bering Sea: a paradigm for offshore spawning flatfish species. Ciannelli, L., **Duffy-Anderson, J.T.**, Bailey, K.M. and Matarese, A. NPRB. \$245K.
- 2005-2006: Processes affecting the productivity of capelin and pollock in the Gulf of Alaska. Logerwell, E., **Duffy-Anderson, J.T.**, Wilson, M. and P. Livingston. NOAA. \$70K
- 2003-2004: Forage fishes in the western Gulf of Alaska: Variations in productivity? Wilson, M.T., Paakkonen, J. **Duffy-Anderson, J.T.**, Bailey, K.M., and J. Napp. NPRB. \$320K.
- 2003-2004: Climate Variability, Structural Front Dynamics, and Zooplankton Availability: What Determines Forage Fish Abundance Around Sea Lion Rookeries (Pt3). Wilson, M., **Duffy-Anderson, J.T.**, Bailey, K. M., and J. Napp. NPRB. \$135K.
- 2003-2004: New Metrics for Ecosystem Change: Bio-diversity and Dynamics of Ichthyoplankton Assemblages (Pt2). **Duffy-Anderson, J.T.**, Bailey, K., Napp, J., Matarese, A., Megrey, B., Picquelle, S. NPRB. \$135K
- 2002-2003: New Metrics for Ecosystem Change: Bio-diversity and Dynamics of Ichthyoplankton Assemblages (Pt1). **Duffy-Anderson, J.T.**, Bailey, K., Napp, J., Matarese, A., Megrey, B., Picquelle, S. NORB. \$266.4.
- 2002-2003: Understanding Ecosystem Dynamics in Relation to Steller Sea Lion Decline. **Duffy-Anderson, J.T.**, Doyle, M., Matarese, A., Mier, K., Picquelle, S., Busby, M. NOAA. \$85K.
- 2001-2002: Accessibility and integration of SEACAT Salinity and Temperature Data for Use in Collaborative Fisheries-Oceanography Research. OAR. \$73.5K. Reed, R.K., **Duffy-**

Anderson, J.T., Merati, N., and T. Vance.

- 2002-2003: Climate Variability, Structural Front Dynamics, and Zooplankton Availability: What Determines Forage Fish Abundance Around Sea Lion Rookeries? (Pt2) Wilson, M., **Duffy-Anderson, J. T.**, Bailey, K.M. and J. Napp. NOAA. \$285K.
- 2001-2002: Climate Variability, Structural Front Dynamics, and Zooplankton Availability: What Determines Forage Fish Abundance Around Sea Lion Rookeries? (Pt1) Wilson, M., **Duffy-Anderson, J.T.**, Bailey, K.M. and J. Napp. NOAA. \$53K.
- 2001-2002: Distribution of Age-1 and Age-2 Walleye Pollock in the Bering Sea: Sources of Variation, Implications for Higher Trophic Levels, and Climate Change. Springer, A., Bailey, K.M., **Duffy-Anderson, J.T.** and Honkalehto, T. PCCRC. \$57.4K.
- 1998-2000: The Effects of Pier Shading and Prey Availability on the Growth of Juvenile Fishes in the New York-New Jersey Harbor Estuary. Able, K.W. and **J.T. Duffy-Anderson.** HRF. \$213K.

PRESENTATIONS AND POSTERS (recent, selected):

Duffy-Anderson, J.T. Marine Heat Waves: Case studies in the Gulf of Alaska and Gulf of Maine. New England University. Invited, April 2022.

Duffy-Anderson, J.T. Cold Water Science. Gulf of Maine Research Institute. Invited, July 2021.

Duffy-Anderson, J.T., Stram, D., and Evans, D. Ecosystem Approaches to Management. DFO, Invited. February 2021.

Duffy-Anderson, J.T. A changing Arctic: Can we forecast winners and losers? Invited. Savannah State University. October 2020.

Duffy-Anderson, J.T. Hi Ho the Plankton! Using ecosystem observations to advance the mission of NOAA Fisheries. USCGC Healy. August 2019.

Duffy-Anderson, J.T. Eco-FOCI - ITAE Collaborations: Using Advanced Technology to Forward EcoFOCI Process Research. NOAA/AFSC. September 2019.

Duffy-Anderson, J.T. Dramatic loss of sea ice brings changes to the Bering and NBS ecosystems. Nome, AK. Strait Science Seminar Series. August 2019.

Duffy-Anderson, J.T. Uncharted waters: Record-breaking low winter sea-ice and implications for the Bering Sea Ecosystem. Invited. Univ WA SAFS. September 2019.

Duffy-Anderson, J.T. The Bering Sea: Ecosystem Cascades after Loss of Sea Ice. Invited. The Ohio State University. November 2019.

PROFESSIONAL ACTIVITIES:

2022-present Board of Directors, NERACOOS, Woods Hole, MA; Member

2022-present ICES Working Group on the Northwest Atlantic Regional Sea, member
 2022-present Arctic Research Consortium of the United States (ARCUS)
 2020-2022 NMFS-DFO Climate Fisheries Bilateral Working Group for Arctic Research;
 Steering Committee Chair
 2014-2022 AFSC Climate Regional Action Plan Team, Bering Sea Region; Author,
 Committee member
 2020 Adaptive Leadership, Seattle, WA
 2019 Invited, Leadership Development Workshop, WMDC, Silver Spring MD
 2011-present International Flatfish Symposium; Steering Committee Chair
 2008-2011 International Flatfish Symposium; Steering Committee Member
 2016 *Journal of Sea Research*, Proceedings from the 9th International Flatfish
 Symposium; Guest Editor
 2014 9th International Flatfish Symposium, Cle Elum WA; Local Organizer and Co-
 host
 2014-present Coastal Cod Working Group (US-Canada)
 2009-2013 Alaska Marine Science Symposium (2009-2013); Organizing Committee
 Member
 2004 Invited, Leadership Potential Workshop, WMDC, Denver, CO, 2004

Proposal Peer Reviews: National Science Foundation (NSF), University Sea Grant Program
 (multiple institutions), North Pacific Research Board (NPRB), NOAA/Fisheries and the
 Environment (FATE), NOAA Fisheries/Regional Action Plans (GOA, BS), Pollock Conservation
 Cooperative Research Center (PCCRC), Hudson River Foundation

Manuscript Peer Reviews: *Alaska Fishery Research Bulletin*, *Bulletin of Marine Science*,
Estuaries, *NOAA/Fishery Bulletin*, *Estuarine, Coastal and Shelf Sciences*, *Deep Sea Research*,
Fisheries Research, *Fisheries Oceanography*, *Global Change Biology*, *ICES J Marine Science*,
Journal of Experimental Marine Biology and Ecology, *International Review of Hydrobiology*,
Journal of Fish Biology, *Journal of Sea Research*, *Marine Biology*, *Marine Ecology Progress
 Series*, *Polar Biology*, *PLoS ONE*, *Progress in Oceanography*, *Scientia Marina*.

INVITED SEMINARS:

2022: Univ of New England, Biddeford, ME.
 2021: Gulf of Maine Research Institute, Portland, ME.
 2020, 2021: Savannah State Univ, Savannah, GA.
 2019: Ohio State Univ, Columbus, OH. (Keynote)
 2019: UW SAFS, Seattle, WA
 2019: PICES, Victoria, BC, Canada. (Keynote)
 2018: University of Rhode Island. Kingston, RI.
 2018: Larval Fish Conference, Victoria, BC, Canada. (Keynote)
 2017: International Pacific Halibut Commission, Seattle, WA.
 2016: PICES, Fish Early Life History. San Diego, CA. (Keynote)
 2014: NOAA/NMFS Alaska Fisheries Science Center. Seattle, WA.
 2011: Oregon State University, Corvallis, OR.
 2010: University of Alaska, Juneau, AK.
 2007: University of Alaska, Juneau, AK.
 2003: University of Washington, School of Aquatic and Fishery Sciences. Seattle, WA.
 2001: NOAA/NMFS Alaska Fisheries Science Center. Seattle, WA.

2000: North Carolina State University, Raleigh, NC.
2000: Oregon State University, Corvallis, OR.
2000: NOAA/NMFS Alaska Fisheries Science Center. Seattle, WA.
1999: University of Delaware, College of Marine Studies. Lewes, DE.
1998: Rutgers University, Institute of Marine and Coastal Sciences. New Brunswick, NJ.
1996: NOAA/NMFS Northeast Fisheries Science Center. Sandy Hook, NJ.

ORGANIZATIONS AND PROFESSIONAL AFFILIATIONS:

American Society of Ichthyologists and Herpetologists (ASIH)
American Fisheries Society/Early Life History Section (AFS/ELH)
International Flatfish Symposium (IFS)
ICES Working Group on the Northwest Atlantic Regional Sea (WGNARS)
Arctic Research Consortium of the United States (ARCUS)

COLLABORATORS (past 5 years):

K. Axler (AFSC), S. Barbeaux (AFSC), H. Batchelder (PICES), R. Brodeur (NWFSC), H. Cabral (University of Lisbon), W. Chen (University of Washington), L. Ciannelli (Oregon State University), E. Curchitster (Rutgers University), S. Danielson (University of Alaska Fairbanks), L. Eisner (AFSC), E. Farley (AFSC), K. Hedstrom (University of Alaska Fairbanks), A. Hermann (University of Washington), A. Hollowed (AFSC), R. Hopcroft (University of Alaska Fairbanks), T. Hurst (AFSC), F. Juanes (University of Victoria), B. Laurel (AFSC), O. LePape (IFREMER), E. Logerwell (AFSC), K. Marshall (NWFSC), J. Miller (Oregon State University), C. Mordy (University of Washington), F. Mueter (University of Alaska Fairbanks), S. Parker-Stetter (AFSC), Ian Perry (DFO), J. Pirtle (AKRO), J. Planas (IPHC), L. Rogers (AFSC), E. Siddon (AFSC), P. Stabeno (OAR/PMEL), W. Stockhausen (AFSC), H. van der Veer (NIOZ)