

Kevin McLean Bailey  
Man & Sea Institute, LLC  
Email: kmacbailey@gmail.com

Education: B.A. (1973) University of California at Santa Barbara in biology  
M.S. (1977) University of Washington in fisheries (phytoplankton ecology)  
Ph.D. (1981) University of Washington in fisheries (fisheries  
oceanography and population dynamics)

Experience:

Founding Director, Man & Sea Institute (1/2013 to present)

Senior Scientist, Alaska Fisheries Science Center, NOAA, 7600 Sandpoint Way  
NE, Seattle, WA 98125 (11/1982 to 1/2013)

Affiliate Full Professor, School of Fisheries, University of Washington,  
Seattle, WA

Postdoctoral Research Associate, School of Fisheries, University of  
Washington (8/81 to 11/82)

Postdoctoral Research Fellow, Scottish Marine Biological Association,  
Dunstaffnage Marine Laboratory, Oban, Scotland (2/82 to 7/83)

Predocotrual Research Associate, School of Fisheries, University of  
Washington (9/78 to 6/81)

Fisheries Biologist, Northwest and Alaska Fisheries Center (9/77 to 9/79:  
intermittent)

Premaster's Research Assistant, School of Fisheries, University of  
Washington (9/75 to 9/77)

Fisheries Biologist, Northwest and Alaska Fisheries Center (5/74 to 9/75:  
intermittent)

Awards: University of California Scholar (1973)  
Environmental Protection Agency Student Grant (1975)  
Egvedt Grant (1980)  
NATO Postdoctoral Fellowship (1982-83)  
Research Award for Foreign Specialist, National Far Seas Fisheries Institute of  
Japan (1992)  
NOAA Bronze Medal Award. Group Citation to the FOCl program (2002)  
Promoted to Affiliate Full Professor, University of Washington (2004)  
Oscar Sette Award for Marine Fish Biology, American Fisheries Society (2008)

Interests: traditional fisheries, sustainability, fisheries oceanography, trophic  
interactions, predation, recruitment and population dynamics of fishes, biology of  
fish larvae, population genetics

Grants, Contracts, Other Activities:

Trace metal interactions and the growth of algae. Contract with Washington Water Research Center (12/76-9/77)

Recruitment of Pacific Hake. Contract with NOAA (9/78 to 9/81)

Population fluctuations and trophic interactions of commercial fishes in the North Pacific. Contract with NOAA (8/81-8/83)

Special postdoctoral support in recruitment fisheries oceanography of walleye pollock in the eastern Bering Sea. SeaGrant (9/87-9/89; co-PI)

Assistance to IMARPE/Peru. Consulting contract with Deutsche Gesellschaft fur technische zusammenarbeit (11/84)

Bering Sea Fisheries Oceanography Coordinated Investigations. NOAA Coastal Oceans Program (1/91 to 10/97; grant co-author)

Recruitment Fisheries Oceanography of Pacific hake SeaGrant (2/93-2/95; co-PI)

U.S. Globec (1997-present, co-PI) Analysis of ichthyoplankton abundance, distribution and species associations in the western Gulf of Alaska (1997-2001)

Development of microsatellite primers for population studies of walleye pollock (1997-1998). Calif-Wash. Sea Grant (1997-98, co-PI)

High resolution analysis of Walleye pollock stock structure using microsatellite DNA markers. Wash. Sea Grant (co-PI, 1997-2000)

Application of elemental fingerprinting to stock structure, migration, and stock mixing problems of walleye pollock. North Pacific Marine Research Program (co-PI, 1999-2000).

Distribution of Age-1 and Age-2 Walleye pollock in the Bering Sea: sources of variation, implications for higher trophic levels, and climate change. Pollock Conservation Cooperative Research Center. (co-PI, 2001-2003).

Climate variability, hydrography and zooplankton availability: what determines forage fish abundance near sea lion rookeries and haulouts? (co-PI, 2002-2006) Stellar Sea Lion Research Initiative.

Complex system dynamics and climate change (PI, 2002-2006) Stellar Sea Lion Research Initiative.

New metrics for ecosystem change: bio-diversity and dynamics of ichthyoplankton assemblages. 2002-2006) Stellar Sea Lion Research Initiative.

Adaptation to a changing world: molecular evidence for selective mortality in walleye pollock larvae (Co-PI, 2005-2009) NPRB

Connectivity between Greenland halibut (*Reinhardtius hippoglossoides*) spawning and nursery areas in the eastern Bering Sea: a paradigm for offshore spawning flatfish species (Co-PI, 2007-2009) NPRB

Wintertime cod, pollock and arrowtooth flounder distribution (Co-PI, 2008-2010) BSIERP

Species-habitat associations in three flatfish species of the eastern Bering Sea as mediated by demographic, human and cross-scale environmental forcing (Co-PI, 2007-2010) NPRB

Assessing the physical and temporal aspects of pollock spawning habitat utilization in Shelikof Strait, Gulf of Alaska. (PI 2008-2010) NOAA EFH

Role of predator-prey interactions in marine ecosystem organization: development of a new toolbox and a comparison of key interactions in the Bering Sea and Gulf of Alaska ecosystems. (co-PI 2009-2012) CAMEO program NSF/NOAA

Sustainability of marine renewable resources under incumbent environmental variability and human exploitation (co-PI 2012-2015) NSF

Student Committees: Sonya Guarda (MS), Racquel Goni (MS), Sarah Hinckley (MS), Dan Stern (MS), Patricia Dell'archiprete (MS, Ph.D.), Anne Hollowed (Ph.D.), Dewayne Fox (MS), Nazila Merati (MS), Stella Spring (MS), Deborah Dwyer (MS), Steve Porter (MS), John Anderson (UBC Ph.D. External Examiner), Kent Smedbol (Mem. Univ. Newfl. Ph.D. External Examiner), Don Bromhead (The Australian Nat. Univ. Ph.D. External Examiner), Vania Freitas (Portugal, PhD external examiner)

Postdoc Supervisor: Tim Mulligan, Osamu Tominaga, Yoh Yamashita, Yoshioke Ozeki, Janet Duffy-Anderson, Lorenzo Ciannelli, Jari-Pekka Paakkonen, Mary Hunsiger (OSU shared with Lorenzo Ciannelli), Nate Bacheler (OSU shared with Lorenzo Ciannelli)

Keynote addresses presented:

1993. Second International Symposium on Flatfish Ecology, Texel, The Netherlands. Predation on juvenile flatfish and recruitment variability.

1994. CalCOFI Symposium on the 1991-92 El Nino and its Impact on Fisheries, Fallen Leaf Lake, Calif. ENSO events in the northern Gulf of Alaska, and effects on selected marine fisheries (K. Bailey invited, but presented by A. Macklin).

1994 Survival Strategies in Early Life Stages of Marine Resources: An International Workshop. Predation on the early life stages of marine fish: a case study on walleye pollock in the Gulf of Alaska (K. Bailey invited, but presented by R. Brodeur)

1996. Third International Symposium on Flatfish Ecology, Texel, The Netherlands. Structural dynamics and ecology of flatfish populations.
1997. The Fisheries Society of the British Isles International Symposium on Ichthyoplankton Ecology, Galway, Ireland. The role of larval retention and transport features in mortality and potential gene flow of walleye pollock.
1997. Workshop to examine the implications of localized fishery stocks, Portland, Maine. Local stocks of walleye pollock: genetics, metapopulation and source-sink issues.
1998. Second International Symposium on Fish Otolith Research and Application, Bergen, Norway. Population dynamics of larval walleye pollock, *Theragra chalcogramma*, in the Gulf of Alaska.
2001. 70<sup>th</sup> anniversary meeting of the Japanese Fisheries Society. Yokohama, Japan. Recruitment of walleye pollock in a complex physical and biological ecosystem.
- 2002 40<sup>th</sup> anniversary meeting of the Japanese Society of Fisheries Oceanography, Tokyo, Japan. A new view of recruitment: fisheries oceanography and complexity in the dynamics of walleye pollock in the Gulf of Alaska.
- 2003 Larval Fish Conference, Santa Cruz, CA. Spawning, dispersal, recruitment and stock structure of pollock: some aspects of what we know and don't know.
- 2011 Departmental Seminar, Department of Biology, University of Oslo.
- 2011 Departmental Seminar, School of Fisheries, University of Washington

## PUBLICATIONS

Journal articles and book chapters:

- Bailey, K.M. and J. Dunn. 1979. Spring and summer food of walleye pollock *Theragra chalcogramma*, in the eastern Bering Sea. Fish. Bull. 77: 304-308.
- Bailey, K.M. and F. Taub. 1980. Effects of hydroxamate siderophores on the growth of algae. J. Phycol. 16: 334-339.
- Bailey, K.M. 1980. Recent changes in the distribution of hake larvae: causes and consequences. CalCOFI Repts. 21: 167-171.
- Bailey, K.M. 1982. Larval transport and recruitment of Pacific hake, *Merluccius productus*. Mar. Ecol. Prog. Ser. 6: 1-9.
- Bailey, K.M. 1982. The early life history of the Pacific hake. Fish. Bull. 80: 589-598.
- Bailey, K.M. and D. Ainley. 1982. The dynamics of California sea lion predation on Pacific hake. Fish. Res. 1: 163-176.
- Bailey, K.M., R. Francis and P. Stevens. 1982. The life history and fishery of Pacific whiting, *Merluccius productus*. CalCOFI Repts. 23: 81-92.

Ainley, D., H. Huber, and K.M. Bailey. 1982. Population fluctuations of California sea lions and the hake fishery off central California. *Fish. Bull.* 80: 253-258.

Bailey, K.M. and R. Batty. 1983. A laboratory study of predation by *Aurelia aurita* on larval herring (*Clupea harengus*): Experimental observations compared with model predictions. *Mar. Biol.* 72: 295-301.

Bailey, K.M. and J. Yen. 1983. Predation by a carnivorous marine copepod, *Euchaeta elongata* Esterly, on eggs and larvae of the Pacific hake, *Merluccius productus*. *J. Plankton Res.* 5: 71-82.

Francis, R. and K.M. Bailey. 1983. Factors affecting the recruitment of selected gadoids in the northeast Pacific and eastern Bering Sea. P. 36-60, in W.S. Wooster (ed.), *From Year to Year. Interannual Variability of the Environment and Fisheries of the Gulf of Alaska and eastern Bering Sea.* Wash. SeaGrant, Seattle. (Book Chapter).

Bailey, K.M. 1984. A comparison of laboratory rates of predation on five species of marine fish larvae by three planktonic invertebrates: effects of larval size on vulnerability. *Mar. Biol.* 79: 303-310.

Bailey, K.M. 1984. Laboratory study of predation by *Aurelia aurita* on larvae of cod, flounder, plaice and herring: Development and vulnerability to capture. *Mar. Biol.* 83: 287-291.

Bailey, K.M. and R.C. Francis. 1985. Recruitment of Pacific whiting, *Merluccius productus*, and the ocean environment. *Mar. Fish. Rev.* 47: 8-15.

Livingston, P. and K.M. Bailey. 1985. Trophic role of the Pacific whiting, *Merluccius productus*. *Mar. Fish. Rev.* 47: 16-22.

Bailey, K.M. and L. Incze. 1985. El Nino and the early life history and recruitment of fishes in temperate marine waters. P. 143-165, in W.S. Wooster and D.L. Fluharty (eds.), *El Nino North.* Wash. SeaGrant, Seattle. (Book Chapter).

Bailey, K.M. and R. Francis. 1986. Environment and population dynamics of Pacific whiting, *Merluccius productus*. *INPFC Bull.* 45: 317-333.

Dwyer, D., K.M. Bailey, P. Livingston, and M. Yang. 1986. Some preliminary observations on the feeding habits of walleye pollock, *Theragra chalcogramma*, in the eastern Bering Sea. *INPFC Bull.* 45: 228-246.

Bailey, K.M. and C. Stehr. 1986. Laboratory studies on the early life history of the walleye pollock, *Theragra chalcogramma*. *J. Exptl. Mar. Biol. Ecol.* 99: 233-246.

Bailey, K.M., R. Francis, and K. Mais. 1986. Evaluating incidental catches of 0-age Pacific hake to forecast recruitment. *CalCOFI Repts.* 27: 109-112.

Bailey, K.M., R. Francis and J. Schumacher. 1986. Recent information on the causes of variability in recruitment of Alaska pollock in the eastern Bering Sea: physical conditions and biological interactions. *INPFC Bull.* 47: 155-166.

Dwyer, D., K.M. Bailey and P. Livingston. 1987. Feeding habits and daily ration of walleye pollock (*Theragra chalcogramma*) in the eastern Bering Sea with special

reference to cannibalism. *Can. J. Fish. Aquat. Sci.* 44: 1972-1984.

Hollowed, A., K.M. Bailey, and W. Wooster. 1987. Patterns in recruitment of marine fishes in the Northeast Pacific Ocean. *Biol. Oceanogr.* 5: 99-131.

Bailey, K.M. and C. Stehr. 1988. The effects of feeding periodicity and ration on the rate of increment formation in otoliths of larval walleye pollock *Theragra chalcogramma* (Pallas). *J. Exptl. Mar. Biol. Ecol.* 122: 147-161.

Bailey, K.M. and E. Houde. 1989. Predation on eggs and larvae of marine fishes and the recruitment problem. *Advances in Marine Biology* Vol. 25: 1-83.

Bailey, K.M. 1989. Interaction between the vertical distribution of juvenile walleye pollock *Theragra chalcogramma* in the eastern Bering Sea, and cannibalism. *Mar. Ecol. Prog. Ser.* 53: 205-213.

Hollowed, A.B. and K.M. Bailey. 1989. New perspectives on the relationship between recruitment of Pacific hake and the ocean environment. *Can. Spec. Publ. Fish. Aquat. Sci.* 108: 207-220.

Wooster, W.S. and K. M. Bailey. 1989. Recruitment of marine fishes revisited. *Can. Spec. Publ. Fish. Aquat. Sci.* 108: 153-159.

Yoklavich, M.M. and K. M. Bailey. 1989. Growth of larval and juvenile walleye pollock from Shelikof Strait, Gulf of Alaska, as determined from daily increments in otoliths. p. 241-252, *Proc. Int. Symp. Biol. Manage. Walleye Pollock, Alaska SeaGrant, Fairbanks, AK.* (Book Chapter).

Hinckley, S., K.M. Bailey, J. Schumacher, S. Picquelle, and P. Stabeno. 1989. Preliminary results of a survey for late-stage larval walleye pollock and observations of larval drift in the western Gulf of Alaska, 1987. p. 297-306, *Proc. Int. Symp. Biol. Manage. Walleye Pollock, Alaska SeaGrant, Fairbanks, AK.* (Book Chapter).

Mulligan, T.J., K.M. Bailey and S. Hinckley. 1989. The occurrence of larval and juvenile walleye pollock, *Theragra chalcogramma*, in the eastern Bering Sea with implications for stock structure. p. 471-490, *Proc. Int. Symp. Biol. Manage. Walleye Pollock, Alaska SeaGrant, Fairbanks, AK.* (Book Chapter).

Yamashita, Y. and K.M. Bailey. 1989. A laboratory study of the bioenergetics of larval walleye pollock *Theragra chalcogramma*. *Fish. Bull.* 87: 525-536.

Yoklavich, M.M. and K.M. Bailey. 1990. Hatching period, growth and survival of larval walleye pollock as determined from otolith analysis. *Mar. Ecol. Prog. Ser.* 64: 13-23.

Hinckley, S., K.M. Bailey, J. Schumacher, S. Picquelle, and P. Stabeno. 1991. Transport, distribution, and abundance larval and juvenile walleye pollock (*Theragra chalcogramma*) in the western Gulf of Alaska. *Can. J. Fish. Aquat. Sci.* 48: 91-98.

Yamashita, Y. and K.M. Bailey. 1991. ETS activity in larval walleye pollock, *Theragra chalcogramma*. *Nippon Suisan Gakk. (Bull. Japan Soc. Sci. Fish.)* 56: 1059-1062.

Brodeur, R., K.M. Bailey, and S. Kim. 1991. Cannibalism on eggs by walleye pollock *Theragra chalcogramma* in Shelikof Strait, Gulf of Alaska. *Mar. Ecol. Prog. Ser.* 71: 207-218.

- Canino, M.F., K.M. Bailey and L. Incze. 1991. Temporal and geographic differences in feeding and nutritional condition of larval walleye pollock, *Theragra chalcogramma*, in Shelikof Strait, Gulf of Alaska. Mar. Ecol. Prog. Ser. 79: 27-35.
- Brown, A. and K.M. Bailey. 1992. Otolith analysis of juvenile walleye pollock *Theragra chalcogramma* from the western Gulf of Alaska, 1987: evidence for stock structure, differential growth, and selective mortality. Mar. Biol. 112: 23-30.
- Bailey, K.M. and S. Spring. 1992. Comparison of larval, age-0 juvenile and age-2 recruit abundance indices of walleye pollock *Theragra chalcogramma* in the western Gulf of Alaska. ICES J. Mar. Sci. 49: 297-304.
- Bailey, K.M., R. Brodeur, N. Merati, and M. Yoklavich. 1993. Predation on walleye pollock *Theragra chalcogramma* eggs and yolk-sac larvae by crustacean invertebrates in the western Gulf of Alaska. Fisheries Oceanography 2: 30-39.
- Hinckley, S., K.M. Bailey, S. Picquelle, M. Yoklavich, and P. Stabeno. 1993. Age-specific mortality and transport of larval walleye pollock (*Theragra chalcogramma*) in the western Gulf of Alaska. Mar. Ecol. Prog. Ser. 98: 17-29.
- Shima, M. and K.M. Bailey. 1994. Comparative analysis of ichthyoplankton sampling gear for walleye pollock (*Theragra chalcogramma*). Fish. Oceanogr. 3: 50-59.
- Bailey, K.M. 1994. Predation on juvenile flatfish and recruitment variability. Neth. J. Sea Res. 32: 175-189.
- Bailey, K.M. and A. Macklin. 1994. Analysis of patterns in larval walleye pollock *Theragra chalcogramma* survival and wind mixing events in Shelikof Strait, Gulf of Alaska. Marine Ecol. Prog. Ser. 113: 1-12.
- Canino, M. and K.M. Bailey. 1995. Gastric evacuation of larval walleye pollock *Theragra chalcogramma* in response to feeding. J. Fish Biol. 46: 389-403.
- Oozeki, Y. and K.M. Bailey. 1995. Ontogenetic development of digestive enzyme activities in larval walleye pollock, *Theragra chalcogramma*. Mar. Biol. 122:177-186.
- Bailey, K.M., M. Canino, J. Napp, S. Spring, and A. Brown. 1995. Contrasting years of prey levels, feeding condition and mortality of larval walleye pollock (*Theragra chalcogramma*) in the western Gulf of Alaska. Mar. Ecol. Prog. Ser. 119: 11-23.
- Bailey, K.M., A. Brown, A. Nishimura, M. Reilly. 1995. 3-D Imaging of walleye pollock *Theragra chalcogramma* otoliths: reconstruction from serial sections and fluorescent laser cytometry. J. Fish. Biol. 47: 671-678.
- Bailey, K.M., Macklin, A., Reed, R.K., Brodeur, R.D., Ingraham, W.J., Piatt, J.F., Shima, M. Francis, R.C., Anderson, P.J., Royer, T.C., Hollowed, A.B., Somerton, D.A. and Wooster, W.S. 1995. ENSO events in the northern Gulf of Alaska, and effects on selected marine fisheries. CalCOFI Repts. 36: 78-96.
- Brodeur, R.D., Bailey, K. 1995. Predation on the early life history of marine fishes: a case study of walleye pollock in the Gulf of Alaska. P. 245-259, In: Y. Watanabe, Y. Yamashita, and Y Oozeki (eds.) "Survival Strategies in Early Life Stages of Marine

Resources". Balkema Press. Rotterdam, Netherlands. (Book Chapter).

Bailey, K.M., S. Picquelle, S. Spring. 1996. Mortality of larval walleye pollock in the western Gulf of Alaska, 1988-91. *Fish. Oceanogr.* 5: 124-136.

Bailey, K.M., A. Brown, M. Yoklavich, K. Mier. 1996. Interannual variability of growth of larval and juvenile walleye pollock in the western Gulf of Alaska. *Fish. Oceanogr.* 5: 137-147.

Theilacker, G., Bailey, K.M., Canino, M., Porter, S. 1996. Variations in larval walleye pollock feeding and condition: a synthesis. *Fish. Oceanogr.* 5: 112-123.

Stabeno, P.J., Schumacher, J.D., Bailey, K.M., Brodeur, R.D., Cokelet, E.D. 1996. Observed patches of walleye pollock eggs and larvae in Shelikof Strait, Alaska: their characteristics, formation and persistence. *Fish. Oceanogr.* 5: 81-91.

Bailey, K.M., Brodeur, R.D., Hollowed, A.B. 1996. Cohort survival patterns of walleye pollock *Theragra chalcogramma*, in Shelikof Strait, Alaska: a critical factor analysis. *Fish. Oceanogr.* 5: 179-188.

Bailey, K.M. 1997. Structural dynamics and ecology of flatfish populations. *J. Sea. Res.* 37: 269-280.

Bailey, K.M., Stabeno, P.J., Powers, D.A. 1998. The role of larval retention and transport features in mortality and gene flow of walleye pollock, *Theragra chalcogramma*. *J. Fish. Biol.* 51: 135-154.

Bailey, K.M. 1998. Local stocks of walleye pollock: genetics, metapopulation and source-sink issues. P. 117-128, In: Hunt von Herbing, I., I. Kornfield, M. Tupper, and J. Wilson (eds.) "The Implications of Localized Fishery Stocks". Northeast Regional Agricultural Engineering Service, NY. (Book Chapter).

Incze, L. and Bailey, K.M. 1998. Oceanography and localized fishery stocks: possible mechanisms. P. 31-37, In: Hunt von Herbing, I., I. Kornfield, M. Tupper, and J. Wilson (eds.) "The Implications of Localized Fishery Stocks". Northeast Regional Agricultural Engineering Service, NY. (Book Chapter).

Bailey, K.M., Powers, D., Villa, G., Nishimura, A., Traynor, J., Walters, G. 1999. Population ecology and structural dynamics of walleye pollock, *Theragra chalcogramma*. P. 581-614, In: Dynamics of the Bering Sea (Eds. T. Loughlin and K. Ohtani). Alaska Sea Grant, Fairbanks. (Book Chapter).

Bailey, K. M., Quinn, T., Grant, W.S., Bentzen, P. 1999. Population structure and dynamics of Walleye pollock, *Theragra chalcogramma*. *Advances in Marine Biology* 37:179-255.

Bailey, K.M., Bond, N. and Stabeno, P. 1999. Anomalous transport of walleye pollock larvae linked to ocean and atmospheric patterns in May 1996. *Fish. Oceanogr.* 8: 264-273.

Bailey, K.M. 2000. Shifting control of recruitment of walleye pollock (*Theragra chalcogramma*) after a major climate and ecosystem change. *Mar. Ecol. Prog. Ser.* 198: 215-224.



O'Reilly, P.T., Canino, M.F., Bailey, K.M. and Bentzen, P. 2000. Isolation of twenty low stutter di- and tetranucleotide microsatellites for population analyses of walleye pollock (*Theragra chalcogramma*) and other gadoids. J. Fish. Biol. 56: 1074-1086.

Brodeur, R.D. and Bailey, K.M. 2001. A different approach to understanding causes of recruitment variability in marine fishes. In: Fisheries Oceanography: An Integrative Approach to Fisheries Ecology and Management (P.J. Harrison and T.R. Parsons, eds.), Fish and Aquatic Resources, Series 4, Blackwell Science, pp. 24-28.

Porter, S., Brown, A. and Bailey, K.M. 2001. Estimating live standard length of net-caught walleye pollock (*Theragra chalcogramma*) larvae using measurements in addition to standard length. U.S. Fish. Bull. 99: 691-696.

Bailey, K.M. and Duffy-Anderson, J. 2001. Fish: Predation/Mortality. Encyclopedia of Ocean Sciences: 961-968.

Sugisaki, H., Bailey, K.M. and Brodeur, R. 2001. Development of predator evasion behavior by larval walleye pollock (*Theragra chalcogramma*). Mar. Biol. 139: 19-24.

Bailey, K.M. and Picquelle, S. 2002. Larval distribution patterns of offshore spawning flatfish in the Gulf of Alaska: sea valleys as transport pathways and enhanced inshore transport during ENSO events. Mar. Ecol. Prog. Ser. 236: 205-217.

Bailey, K.M. 2002. Complex processes in the survival of walleye pollock larvae and forecasting implications. Journal of Fisheries Science 68: 200-205.

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.

Bailey, K.M., Merati, M., Helser, M., Hiramatsu, N and Hara, A. 2002. Developmental changes in egg-yolk proteins of walleye pollock, *Theragra chalcogramma*, and a comparative study of immunoreactivity of other North Pacific teleosts and invertebrate eggs. Bull. Fish. Sci, Hokkaido Univ. 53: 95-105.

Bailey, K.M., Brown, E.S. and Duffy-Anderson, J.T. 2003. Aspects of distribution, transport and recruitment of Alaska plaice (*Pleuronectes quadrituberculatus*) in the Gulf of Alaska and eastern Bering Sea: comparison of marginal and central populations. J. Sea. Res. 50: 87-95.

Bailey, K.M., Ciannelli, L. and Agostini, V. 2003. Complexity and constraints combined in simple models of recruitment. pp: 293-301, In: H.I. Browman and A.B. Skiftesvik (Eds.). The Big Fish Bang. Proceedings of the 26th Annual Larval Fish Conference. Institute of Marine Research, Bergen, Norway, ISBN 82-7461-059-8

Duffy-Anderson, J.T., Ciannelli, L., Honkalehto, T., Bailey, K., Sogard, S., Springer, A., and Buckley, T. 2003. Distribution of age-1 and age-2 walleye pollock in the North Pacific: sources of variation, implications for higher trophic levels and climate change. pp: 381-394, In: H.I. Browman and A.B. Skiftesvik (Eds.). The Big Fish Bang. Proceedings of the 26th Annual Larval Fish Conference. Institute of Marine Research, Bergen, Norway, ISBN 82-7461-059-8

Bailey, K.M., Hollowed, A.B., and Wooster, W.S. 2004. Complexity in marine fisheries dynamics and climate interactions in the Northeast Pacific Ocean. Pp. 147-152 in Stenseth, N.C., Ottersen, G, Hurrell, J.W. and Belgrano, A (Eds.). *Marine Ecosystems and Climate Variation*. Oxford Univ. Press.

FitzGerald, J. L., Thorrold, S. R., Bailey, K. M., Brown, A. L., and Severin, K. P. 2004. Elemental signatures in otoliths of larval walleye pollock (*Theragra chalcogramma*) from the northeast Pacific Ocean. *Fish. Bull.* 102: 604-616.

O'Reilly, P. T., Canino, M. F., Bentzen, P., and Bailey K.M. 2004. Inverse relationship between  $F_{ST}$  and microsatellite polymorphism in the marine fish, walleye pollock (*Theragra chalcogramma*): implications for resolving weak population structure. *Mol. Ecol.* 13: 1799-1814.

Ciannelli , L., Chan , K.S., Bailey, K.M., and Stenseth, N.C. 2004. Non-additive effects of environmental variables on the survival of a large marine fish population. *Ecology* 85: 3418-3427.

Bailey, K.M., Nakata, H. and Van der Veer, H. 2005. The planktonic stages of flatfish: physical and biological interactions in transport processes. Pp. 94-119 in Gibson, R. (Ed.). *Flatfishes: Biology and Exploitation*. Blackwell Publ.

Ciannelli L. and Bailey K.M. 2005. Landscape (seascape) dynamics and underlying species interactions: the cod-capelin system in the southeastern Bering Sea. *Mar. Ecol. Prog. Ser.* 291: 227-236

Bailey, K.M., Ciannelli, L., Bond, N., Belgrano, A. and Stenseth, N.C. 2005. Recruitment of walleye pollock in a complex physical and biological ecosystem. *Progress in Oceanography* 67: 24-42

Ciannelli, L., Bailey, K.M., Stenseth, N.C., Chan, K.-S., and Belgrano, A. 2005. Climate change causing phase transition of walleye pollock (*Theragra chalcogramma*) Recruitment Dynamics. *Proc. Royal Soc. B.* 272: 1735-1743

Duffy-Anderson, J., 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. *Ecological Complexity* 2: 205-218

Porter, S.M. Ciannelli, L., Hillgruber, N., Bailey, K.M., Chan, K.S., Canino, M.F., Haldorson, L.J. 2005. Analysis of factors influencing larval walleye pollock *Theragra chalcogramma* feeding in Alaskan waters. *Mar. Ecol. Prog. Ser.* 302: 207-217

Litzow, M., Bailey, K.M., Heinz, R. and Prah, F. 2006. Climate regime shifts and reorganization of fish communities: the essential fatty acid limitation hypothesis. *Mar. Ecol. Prog. Ser.* 315:1-11.

Bailey, K.M. and Ciannelli, L. 2007. Ecosystem structure and strategies for survival of walleye pollock. Pp. 85-92, In R.B Spies, ed. Long-term ecological change in the northern Gulf of Alaska. Elsevier, Oxford.

Abookire, A.A, and Bailey, K.M. 2007. The distribution of life cycle stages of two deep-water pleuronectids, Dover (*Microstomus pacificus*) and rex sole (*Glyptocephalus zachirus*), at the northern extent of their range in the Gulf of Alaska. Journal of Sea Research 57:198-208.

Porter, S.M. and Bailey, K.M. 2007. Effect of egg stage duration on escape response of walleye pollock larvae. J. Plankton Res. 29: 291-300.

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