

CURRICULUM VITAE

5 OCTOBER 2004

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Date and place of birth: 30 December 1965; Rochester, New York.

EDUCATION AND TRAINING

Ph.D. Oceanography, State University of New York at Stony Brook. 1994.

B.A. Biology, Wesleyan University, Middletown, Connecticut. 1987.

PROFESSIONAL EMPLOYMENT

Research Fishery Biologist – NOAA Center for Coastal Fisheries and Habitat Research, 1997 to present – Conduct research into the biological and physical processes that drive the dynamics of marine fishes and determine the structure of marine fish communities; examine biological-physical coupling in the marine environment; study larval fish ecology and taxonomy.

Adjunct Research Professor, Department of Zoology, North Carolina State University, 2002 to present – Collaborate with faculty, serve on graduate student committees, and teach courses.

Adjunct Research Professor, Marine, Earth and Atmospheric Sciences, North Carolina State University, 2002 to present – Collaborate with faculty, serve on graduate student committees, and teach courses.

Adjunct Professor, Department of Biology, East Carolina University, 2000 to present – Serve as guest lecturer and serve on graduate student committees.

Adjunct Research Assistant Professor, Old Dominion University, 1998 to present – Collaborate with faculty and serve on graduate student committees.

National Research Council Research Associate – NOAA Beaufort Laboratory, 1994 to 1997 – Examined physical and biological mechanisms responsible for the cross-shelf transport of larval fishes on the Carolina continental shelf.

Graduate Research Assistant – SUNY Stony Brook, 1988 to 1994 – Researched the processes affecting the larval survival and recruitment of bluefish along the east coast of the United States.

SPECIAL ASSIGNMENTS

Fisheries Oceanography and Ecology Team Leader, 1999 to 2004 – Manage group of 15–20 scientists and support personnel involved in fisheries oceanography research.

Acting Fisheries Oceanography and Ecology Team Leader, 1998 to 1999 – Temporarily managed group of 5–10 scientists and support personnel involved in fisheries oceanography research.

Southeast Region CoastWatch Node Manager – NOAA Beaufort Laboratory, 1998 to 2002 – Managed NOAA National Environmental Satellite, Data, and Information Service (NESDIS) Program at NOAA Beaufort Laboratory that made remotely-sensed data available for researchers, coastal managers, educators and the public.

SPECIAL ACTIVITIES

Scientific Service

Member Scientific Steering Committee of U.S. GLOBEC Program, May 2004 – present.

Participant in Southeast Fisheries Science Center Coral Reef Program Review, March 2004.

Participant in U.S. Climate Change Science Program Ecosystems Interagency Work Group Workshop – February 2004

Marine Ecology Progress Series Review Editor, January 2004 to present.

Participant in a NOAA National Marine Fisheries Service (NMFS) Sponsored Workshop – Building Environmental Explicit Stock Assessments – Discussion moderator for ‘Problems of Scale’ theme group – November 2003.

Participant in Gray’s Reef National Marine Sanctuary Sponsored Workshop on Reef Fish Monitoring – May 2003.

Participant in National Science Foundation Sponsored Connectivity Workshop – November 2002.

Participant in Atlantic States Fishery Management Council Workshop on Atlantic Menhaden Mortality – October 2002.

Co-organizer and Participant in US–Poland Joint Scientific Studies Advisory Committee Meeting – June 2002.

Marine Ecology Progress Series Review Staff, December 2001 to 2004.

NOAA CSCOR/NSF Northwest Atlantic GLOBEC Panel – October 2001.

Participant in South Atlantic Fishery Council Habitat Advisory Panel Meeting, August 2001.

Participant in US–Poland Joint Scientific Studies Advisory Committee Meeting – June 2001.

Member of Pacific Fisheries Environmental Laboratory Review Panel, August 2000.

Participant in South Atlantic Fishery Council Habitat Advisory Panel Meeting, August 2000.

Reviewer of Canadian GLOBEC Program, January 2000.

External Examiner for Master Thesis, Dalhousie University, January 2000.

External Examiner for Master Thesis, Memorial University of Newfoundland, January 2000.

NCCOS Coral Reef Workshop Participant – April 1999, December 1999.

Organizer for 1999 Annual CoastWatch Meeting – November 1999.

Member of Local Organizing Committee – 23rd Larval Fish Conference – April 1999.

Participant in ICES Global Ocean Observing System Workshop – March 1999.

Co-organizer of American Society of Limnology and Oceanography Symposium – January 1999.

Participant in US–Poland Joint Scientific Studies Advisory Committee Meeting – June 1998.

Southern Regional Representative to the Early Life History Section of the American Fisheries Society – 1996 – 1999.

NSF Northeast Pacific GLOBEC Panel – April 1997.

Co-organizer of the Life History Strategies of *Pomatomus saltatrix* Symposium at the International Larval Fish Conference – June 1995.

American Fisheries Society J. Francis Allen Scholarship Selection Committee – 1997, 1998.

Sally Richardson Award Committee – Larval Fish Conference – 1995, 1996; 2001.

Manuscript Peer-Reviews for: Fishery Bulletin; Estuaries; Estuarine, Coastal, Shelf Science; National Research Council; Marine Ecology Progress Series, Ecology; Journal of the Marine Technology Society; Scientia Marina; Fisheries Oceanography; Limnology and Oceanography; Canadian Journal of Fisheries and Aquatic Sciences; Frontiers in Ecology; Journal of North American Fisheries Management.

Proposal Peer-Reviews for: SK Program; Northeast Pacific GLOBEC; NSF Polar Programs; NSF Biological Oceanography; University of Delaware Sea Grant Program; University of Maryland Sea Grant Program, NOAA/NMFS Cooperative Marine Education and Research Program, MARFIN; NOAA Bluefish/Striped Bass Research Program.

Instruction

Instructor – Fisheries Oceanography Seminar – NCSU MEAS/Zoology Department Course 624 – Spring 2003.

Internship Advisor – Smith College Summer Internship Program – Summer 2002 (co-advisor).

Department of Defense Executive Leadership Program Advisor – Summer 2001.
Internship Advisor – Smith College Summer Internship Program – Summer 2001.
Internship Advisor – Marine Advanced Technology Education Center – RV Cape Hatteras cruise February 2001.
Internship Advisor – Marine Advanced Technology Education Center – RV Cape Hatteras cruise November 2000.
Guest Lecturer, Coastal Ecological Processes – East Carolina University, Fall 1999.
Guest Lecturer, Environmental Science – East Carolina University, Spring 1996 & 1997.
Guest Lecturer, Marine Community Ecology – East Carolina University, Fall 1995 & Spring 1997.
Teaching Assistant, Tropical Marine Ecology – SUNY Stony Brook, Winter 1991.
Practicum in Teaching, Ichthyology – SUNY Stony Brook, Fall 1990.
Teaching Assistant, Environmental Problems – SUNY Stony Brook, Fall 1988.

Post-Doctoral Advisees

Mark Wuenschel – 2002–present.
Frank Hernandez – 2002–present.
Dariusz Fey – National Research Council – 2002–2003.
Cecily Natunewicz – National Research Council – 2001–2002.

Student Committees

Sarah Carr – University of North Carolina Chapel Hill, Department of Marine Sciences, Doctor of Philosophy Degree – Committee Member.
Harvey Walsh – North Carolina State University, Department of Zoology, Masters Degree – Co–advisor.
Jacqueline Jenkins – East Carolina University, Master Degree – Co–advisor.
Karen Pherson Edwards – University of North Carolina Chapel Hill, Department of Marine Sciences, Doctor of Philosophy Degree – Committee member.
Steven Searcy – North Carolina State University, Marine, Earth and Atmospheric Sciences, Doctor of Philosophy Degree – Committee member.
Gretchen Bath Martin – Old Dominion University, Department of Biology, Doctor of Philosophy Degree, Fall 2003 – Committee member.
Matt Kimball – North Carolina State University, Department of Zoology, Masters Degree, Summer 2003 – Co–advisor.
Katrin Marancik – East Carolina University, Master Degree, Spring 2003 – Co–advisor.
Katrin Marancik – University of North Carolina Wilmington, Undergraduate Honors Thesis, Spring 2001 – Committee Member.

Mimi Tzeng – University of North Carolina Wilmington, Masters Degree, Spring 2001 – Co–advisor.

Jason Rogers – University of North Carolina Wilmington, Masters Degree, Spring 2000 – Co–advisor.

Field Activities

Chief Scientist on approximately 30 oceanographic cruises in the western Atlantic Ocean and Gulf of Mexico. Vessels include RV ONRUST, RV CAPE HATTERAS, RV PELICAN, NOAA Ship FERREL, NOAA Ship OREGON II, NOAA Ship CHAPMAN and NOAA Ship GORDON GUNTER.

Cruise participant on approximately 25 additional oceanographic cruises in the western Atlantic Ocean, Gulf of Mexico, and Caribbean Sea. Additional vessels include RV ENDEAVOR and RV ISELIN.

Sampled from Pivers Island Bridge during summers (May–Oct) 1998 and 1999 and winter (Nov–Apr) from 1994 to present.

Extensive field experience with various biological and physical oceanographic sampling equipment.

Involved in the design, construction and deployment of current meter moorings in the Middle Atlantic Bight and Caribbean.

Research diver for projects studying recruitment and post–settlement mortality of coral reef fishes in Barbados and Bermuda.

HONORS AND AWARDS

Fellowships and Grants (competitive)

Coastal Ocean Program – South Florida Ecosystem Research and Monitoring Program – Jonathan Hare, Kevin Craig, Larry Crowder, Allyn Powell, Larry Settle, and Mark Wuenschel – 2004.

National Sea Grant – Essential Fish Habitat – Dave Eggleston, Jonathan Hare, and Steven Searcy – 2002.

Coastal Ocean Program – South Florida Ecosystem Research and Monitoring Program – Jonathan Hare and Larry Settle – 2002.

Coastal Ocean Program – Coastal Ecosystem Research Project in the Northern Gulf of Mexico – Jonathan Hare and Jeff Govoni – 2001.

National Sea Grant – Essential Fish Habitat – Simon Thorrold, Luiz Barbieri, Su Sponaugle, Robert Cowen, Cynthia Jones, and Jonathan Hare – 2000.

National Science Foundation – Biological Oceanography – Cynthia Jones, Simon Thorrold, Arnaldo Valle-Levinson and Jonathan Hare – Old Dominion University – 1999.

National Undersea Research Center Development Grant – 1996.

National Research Council Research Associateship – 1994 – *renewed in* 1995 & 1996.

New York Sea Grant Institute Thesis Completion Award – 1994.

Hudson River Foundation Doctoral Fellowship – 1993.

American Fishing Tackle Manufacturers Association, Andrew J. Boehm Fellowship – 1993.

Sounds Conservancy Grant in Marine Conservation, Education and Research – 1993.

American Museum of Natural History, Lerner Gray Fund for Marine Research – 1992.

Awards

NOAA Administrator Award – May 2003.

W.F. Thompson Award, American Institute of Fishery Research Biologists – August 1999.

Sally Richardson Award for Best Student Paper, Larval Fish Conference – June 1994.

Northeast Fish and Wildlife Conference Best Student Paper – April 1993.

Sally Richardson Award for Best Student Paper, Larval Fish Conference – June 1991.

PROFESSIONAL AFFILIATIONS

American Geophysical Union, 1999 to present.

American Society of Limnology and Oceanography, 1992 to present.

Early Life History Section of the American Fisheries Society, 1989 to present.

ORAL PRESENTATIONS

Invited

Woods Hole Oceanographic Institution, Biology Department Seminar, March 2004.
East Carolina University, Department of Biology – November 2003.
University of North Carolina Chapel Hill, Marine Science Department Seminar – April 2003.
Woods Hole Oceanographic Institution, Biology Department Seminar, May 2002.
Marine, Earth and Atmospheric Sciences Departmental Seminar, North Carolina State University – March 2002.
South Atlantic Fishery Management Council – Habitat Committee – March 2002.
Gray's Reef Sanctuary Advisory Council Meeting – March 2002.
Estuarine Research Federation – November 2001.
Pacific Fisheries Environmental Laboratory – August 2000.
Duke University Marine Laboratory Seminar Series – April 2000.
University of North Carolina, Chapel Hill, Department of Marine Sciences – April 2000.
Dalhousie University – Biological Oceanography Seminar Series – February 2000.
Duke University Marine Laboratory Seminar Series – December 1997.
Illinois Natural History Survey, Center for Aquatic Ecology – February 1997.
NOAA NMFS Sandy Hook Laboratory – August 1996.
University of Southwestern Louisiana, Department of Biology – April 1996.
University of North Carolina, Chapel Hill, Department of Marine Sciences – April 1996.
Old Dominion University, Department of Biology – March 1996.
University of North Carolina, Wilmington, Department of Biology – March 1996.
East Carolina University, Department of Biology – October 1995.
Wildlife Conservation Society – October 1995.
Dissertation Initiative for the Advancement of Limnology & Oceanography Symposium – December 1994.
NOAA NMFS Beaufort Laboratory – October 1994.
College of Charleston, Department of Biology – March 1994.
Hudson River Foundation – February 1994.

Regular

Larval Fish Conference – August 2001.

American Society of Limnology and Oceanography Winter Meeting – February 2001.

Federal Interagency Committee of the Geographic Information Coordinating Council, February 2000.

CoastWatch Annual Meeting – November 1999.

Larval Fish Conference – April 1999.

American Society of Limnology and Oceanography Winter Meeting – February 1999.

American Fisheries Society Annual Meeting – August 1998.

Southeast Coastal Ocean Research Conference – April 1998.

American Society of Ichthyologists & Herpetologists/Larval Fish Conference – June 1997.

American Society of Limnology and Oceanography Winter Meeting – February 1997.

South Atlantic Bight Recruitment Experiment Annual Meeting – September 1996.

American Society of Ichthyologists & Herpetologists/Larval Fish Conference – June 1996.

Middle Atlantic Bight Physical Oceanography & Meteorology Workshop – November 1995.

South Atlantic Bight Recruitment Experiment Annual Meeting – October 1995.

International Larval Fish Conference – June 1995.

Larval Fish Conference – June 1994.

Middle Atlantic Bight Physical Oceanography & Meteorology Workshop – November 1993.

Larval Ecology Meetings – August 1993.

Northeast Fish & Wildlife Conference – April 1993.

Fish Otolith Research & Application Symposium – January 1993.

Larval Fish Conference – June 1992.

American Society of Ichthyologists & Herpetologists – June 1990.

Poster presentations and co-authored talks are not listed

PUBLICATIONS

Peer-Reviewed Articles

Hare JA, Cowen RK. (1991) Expatriation of *Xyrichtys novacula* (Pisces: Labridae) larvae: Evidence of rapid cross-slope exchange. *Journal of Marine Research* 49:801–823.

Hare JA, Cowen RK (1993) Ecological and evolutionary implications of the larval transport and reproductive strategy of bluefish *Pomatomus saltatrix*. *Marine Ecology Progress Series* 98:1–16.

Cowen RK, Hare JA, Fahay MP (1993) Beyond hydrography: Can physical processes explain larval fish assemblages within the Middle Atlantic Bight? *Bulletin of Marine Science* 53:567–587.

Hare JA, Cowen RK (1994) Ontogeny and otolith microstructure of bluefish *Pomatomus saltatrix* (Pisces: Pomatomidae). *Marine Biology* 118:541–550.

Hare JA, Cowen RK, Zehr JP, Juanes F, Day KH (1994) Biological and oceanographic insights from larval labrid (Pisces: Labridae) identification using mtDNA sequences. *Marine Biology* 118:17–24.

Hare JA, Cowen RK (1995) The effect of age, growth rate and ontogeny on the relationship between otolith and somatic size in bluefish, *Pomatomus saltatrix*, and the implications for backcalculation of size in the early life history stages of fishes. *Canadian Journal of Fisheries and Aquatic Sciences* 52:1909–1922.

Hare JA, Cowen RK (1996) Transport mechanisms of bluefish (*Pomatomus saltatrix*) larvae from South Atlantic Bight spawning grounds to Middle Atlantic Bight nursery habitats. *Limnology and Oceanography* 41:1264–1280

Juanes F, Hare JA, Miskiewicz AT (1996) Comparing early life history strategies of *Pomatomus saltatrix*: a global approach. *Marine and Freshwater Research* 47:365–379

Marks RE, Juanes F, Hare JA, Conover DO (1996) The occurrence and effect of the parasitic isopod *Lironeca ovalis* (Isopoda, Cymothoidae), on young-of-the-year bluefish, *Pomatomus saltatrix* (Pisces, Pomatomidae). *Canadian Journal of Fisheries and Aquatic Sciences* 53: 2052–2057.

Hare JA, Cowen RK (1997) Size, growth, development and survival of the planktonic larvae of *Pomatomus saltatrix* (Pisces: Pomatomidae) *Ecology* 78:2415–2431.

Hare JA, Cowen RK, Zehr JP, Juanes F, Day KH (1998) A correction to: Biological and oceanographic insights from larval labrid (Pisces: Labridae) identification using mtDNA sequences. *Marine Biology* 130:589–592.

Hettler WF, Hare JA (1998) Abundance and size of larval fishes outside the entrance to Beaufort Inlet, North Carolina. *Estuaries* 21: 476–499.

Begg GA, Hare JA, Sheehan DD (1999) The role of life history parameters as indicators of stock structure. *Fisheries Research* 43:141–163.

Hare JA, Quinlan JA, Werner FE, Blanton BO, Govoni JJ, Forward RB, Settle LR, Hoss DE (1999) Larval transport during winter in the SABRE study area: results of a coupled vertical larval behavior–three–dimensional circulation model. *Fisheries Oceanography*. 8 (supplement):57–76.

Powell AB, Lindquist DG, **Hare JA** (2000) Larval and pelagic juvenile fishes collected with three types of gear in Gulf Stream and shelf waters off North Carolina. *Fishery Bulletin* 98: 427–438.

Hare JA, Fahay MP, Cowen RK (2001) Springtime ichthyoplankton of the slope region off the north–eastern United States of America: larval assemblages, relation to hydrography and implications for larval transport. *Fisheries Oceanography* 10: 164–192.

Rogers JS, **Hare JA**, Lindquist DG (2001) The otolith record of age, growth and ontogeny in larval and pelagic juvenile *Stephanolepis hispidus* (Pisces: Monacanthidae). *Marine Biology* 138: 945–953.

Hare JA, Hoss DE, Powell AB, Konieczna M, Peters DS, Cummings SR, Robbins RE (2001) Larval distribution and abundance of the family Scombridae and Scombridae in the vicinity of Puerto Rico and the Virgin Islands. *Bulletin of the Sea Fisheries Institute* 153(2):13–30.

Whitfield P, Gardner T, Vives SP, Gilligan MR, Courtenay WR., Ray GC, **Hare JA**. (2002) Biological invasion of the Indo–Pacific lionfish (*Pterois volitans*) along the Atlantic coast of North America. *Marine Ecology Progress Series* 235:289–297.

Hare JA, Churchill JH, Cowen RK, Berger T, Cornillon P, Dragos P, Glenn S, Govoni JJ, Lee TN (2002) Routes and rates of larval fish transport from the southeastern to the mid–Atlantic North American continental shelf. *Limnology and Oceanography* 47:1774–1789.

Govoni JJ, Laban EH, **Hare JA**. (2003) Age, growth, and early life history of swordfish, *Xiphias gladius*, in the Western North Atlantic. *Fishery Bulletin*. 101:778–789.

Tzeng MW, **Hare JA**, Lindquist DG. (2003) Ingress of transformation stage gray snapper, *Lutjanus griseus* (Pisces: Lutjanidae) through Beaufort Inlet, North Carolina. *Bulletin of Marine Science* 72: 891–908.

Hare JA. (in review) Toward predicting Atlantic menhaden (*Brevoortia tyrannus*) ingress through Beaufort Inlet, North Carolina: Model development and evaluation. *Fisheries Oceanography*.

Hare JA, Thorrold ST, Walsh H, Reiss C, Valle–Levinson A, Jones C. (in review) Mechanisms of larval fish ingress into Chesapeake Bay: coupling biology and physics. *Limnology and Oceanography*.

Grothues TM, Cowen RK, **Hare JA** (in review) Dynamics of springtime larval fish assemblages at Cape Hatteras. *Estuarine, Coastal and Shelf Sciences*.

Hawn AT, Bath Martin G, Sandin SA, **Hare JA** (in review) Early juvenile mortality in a cohort of *Chromis cyanea*: the growth–mortality hypothesis revisited. *Marine Ecology Progress Series*.

Kimball ME, Miller JM, Whitfield PE, **Hare JA** (in review) Using temperature tolerance to predict the distribution of the invasive lionfish (*Pterois volitans/miles* complex) on the east coast of the United States. *Marine Ecology Progress Series*.

Marancik KE, Clough L, **Hare JA**. (in review) Cross–shelf and seasonal variation in larval fish assemblages in the Georgia Bight region of the southeast United States continental shelf. *Fishery Bulletin*.

Fey DP, **Hare JA** (in review) Length correction of larval and early–juvenile Atlantic menhaden (*Brevoortia tyrannus*) after preservation in alcohol. *Fishery Bulletin*.

Hare JA, Govoni JJ. (in review). Vertical distribution and the outcome of larval fish transport along the southeast United States continental shelf during winter. *Fishery Bulletin*.

Ferguson RL, Krouse C, Patterson M, **Hare JA** (in review) Automate geopositioning of daytime AVHRR images. *Photogrammetric Engineering and Remote Sensing*.

Fey DP, Bath GE, Morris JA, **Hare JA**. (in laboratory review) Effect of otolith type and preparation technique on age estimation of larval and juvenile spot (*Leiostomus xanthurus*). for *Fishery Bulletin*.

Hare JA, Able KW. (in laboratory review). Outbursts of Atlantic croaker (*Micropogonias undulatus*) along the east coast of the United States. for *Marine Ecology Progress Series*.

Wuenschel MJ, Jugovich AR, **Hare JA**. (in laboratory review). Effect of temperature and salinity on feeding and growth of juvenile gray snapper (*Lutjanus griseus*): implications for nursery habitat value. for *Journal of Experimental Marine Biology and Ecology*.

Book Chapters

Govoni, JJ, **Hare, JA** (2001) The Charleston Gyre as spawning and larval nursery habitat for fishes. Pages 123–136. In: Sedberry, GR (ed.) Island in the stream: oceanography and fisheries of the Charleston Bump. American Fisheries Society, Symposium 25, Bethesda, Maryland.

Thorrold, SR, **Hare, JA** (2002) Application of otoliths to the study of coral reef fishes. p. 243–264. In: Sale, PF (ed.) Ecology of Coral Reef Fishes, Academic Press.

Hare JA (in press) The use of early life stages in stock identification studies. In: Cardin S, Friedland K, Waldman J. (eds.) Stock Identification Methods, Academic Press.

Fahay, MP, **Hare, JA** (in review) Guide to the identification of early life history stages of ophidiiform fishes of the western central Atlantic. In: Richards, WF. (ed.) Guide to the early history stages of fishes in the western central Atlantic. CRC Press.

Hare, JA, Marancik, KE, Greene, ME (in review) Guide to the identification of early life history stages of bregmacerotid fishes of the western central Atlantic. In: Richards, WF. (ed.) Guide to the early history stages of fishes in the western central Atlantic. CRC Press.

Hare, JA, Marancik, KE (in review) Guide to the identification of early life history stages of psychrolutid fishes of the western central Atlantic. In: Richards, WF. (ed.) Guide to the early history stages of fishes in the western central Atlantic. CRC Press.

Book Reviews

Hare, JA. (2000) Larvae of temperate Australian fishes, laboratory guide for larval fish identification. Bulletin of Marine Science 67: 1024.

Peer-Reviewed and Non-Peer Reviewed Reports

Hare, JA, Burton, M, Garrison, E, Hyland, J, Parker, R, Sedberry, G. (2001) Assessment of Gray's Reef National Marine Sanctuary relative to the criteria established by the South Atlantic Fishery Management Council for Marine Protected Areas in the South Atlantic. Prepared for Gray's Reef National Marine Sanctuary and submitted to the South Atlantic Fishery Management Council on 21 May 2001. *non peer-reviewed*

Hare, JA, Whitfield P (2003) An Integrated Assessment of the Introduction of Lionfish (*Pterois volitans*) to the western Central Atlantic Ocean. NOAA NOS Technical Memorandum NCCOS 2, 21 pp. *peer-reviewed*

Burke, JS, Burton, ML, Currin, CA, Field, DW, Fonseca, MS, **Hare, JA**, Kenworthy, WJ, Uhrin, AV (2004) Biogeographic analysis of the Tortugas Ecological Reserve: Examining the refuge effect following reserve establishment. Marine Sanctuaries Conservation Series MSD-04-01, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Marine Sanctuaries Division, Silver Spring, Maryland, 28 pp.

Hare, JA, Govoni, JJ. (in laboratory review) Exploration of the Charleston Gyre: An Animation of Eddy Dynamics. To be submitted to NOAA Office of Exploration. *non peer-reviewed*

NAME AND MAILING ADDRESS OF FOUR PROFESSIONAL REFERENCES

Robert K. Cowen
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