

**William Frank Patterson III**  
*Curriculum Vitae*

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**CITIZENSHIP:** USA

**DATE OF BIRTH:** October 7, 1969; Richmond, Virginia, U.S.A.

**EDUCATION:**

- 1999 Ph.D., University of South Alabama, Department of Marine Sciences, Dissertation: Aspects of the Population Ecology of Red Snapper, *Lutjanus campechanus*, in an Artificial Reef Area off Alabama. Thesis Advisor: Jim Cowan.
- 1995 M.S., Old Dominion University, Biological Sciences, Thesis: Nutritional Condition of Striped Bass, *Morone saxatilis*, Larvae as Determined by Constituent Lipid Analysis. Thesis Advisor: Ray Birdsong.
- 1991 B.A., University of Virginia, History, Thesis: Liberalism and the American Labor Movement: 1940-1960. Thesis Advisor: Scot French

**POSITIONS HELD:**

- 2007-date Associate Professor, Department of Biology, University of West Florida
- 2004-date Assistant Professor, Department of Biology, University of West Florida
- 2005-2007 Adjunct Assistant Professor, Department of Biology, Texas A&M University Corpus Christi
- 2005 Adjunct Assistant Professor, School of Fisheries and Ocean Sciences, University of Alaska
- 2005-date Adjunct Assistant Professor, Department of Oceanography, Louisiana State University
- 2004-2007 Adjunct Assistant Professor, Department of Marine Sciences, University of South Alabama
- 2001-2003 Member, Graduate Faculty, University of South Alabama
- 2001-2003 Assistant Research Professor, Department of Marine Sciences, University of South Alabama
- 2001-2003 Adjunct Senior Marine Scientist, Dauphin Island Sea Lab
- 1999-2001 Postdoctoral Fellow, Coastal Fisheries Institute, Louisiana State University, Post-doc Advisor: Chuck Wilson
- 1995-1999 Graduate Research Assistant, Department of Marine Sciences, University of South Alabama
- 1993-1995 R/V Operator and Field Technician, Applied Marine Research Laboratory, Old Dominion University.
- 1993-1995 Graduate Research Assistant, Department of Biological Sciences, Old Dominion University.

**TEACHING**

**COURSES TAUGHT AT UWF:**

*Marine Vertebrate Zoology* (Spring 2004, 2005, 2006; Fall 2006, 2007, 2008): This undergraduate course is a survey of fishes and higher marine vertebrates. Evolutionary trends are stressed within vertebrate groups, along with biogeography and biodiversity hotspots. Laboratory exercises are designed to familiarize students with fish internal and external anatomy, predominant swimming modes, and life history stages, as well as the diversity of local freshwater, estuarine and marine ichthyofauna.

*Marine Fisheries* (Fall 2004; Spring 2007, 2009): This undergraduate/graduate course is an introduction to the population ecology of fishes, with an emphasis placed on exploited species. Lecture topics include the global status of fished species, fishing gears, the interaction of gears with habitat and non-exploited species or life stages, and the implications of life history strategy on vulnerability to exploitation. Laboratory exercises are designed to familiarize students with fisheries techniques, such as sample design, estimating age from hardparts, and staging histological sections of gonads. In the second half of the course, laboratory exercises introduce students to basic fisheries modeling techniques, including growth functions, catch curve

analysis, estimating catchability and selectivity, spawner-recruit functions, surplus production models, and virtual population analysis.

*Aquaculture* (Fall 2005, Spring 2008): This undergraduate/graduate course is an introduction to the culture of marine and freshwater organisms for food production, public aquaria, and ecological research. Students are exposed to physical, chemical, and biological factors that constrain the culture of various invertebrate and vertebrate taxa. The laboratory section of the course is handled as a discussion section of topical scientific, economic, environmental, and political issues in aquaculture. In addition, several field trips are made to finfish and invertebrate culture facilities to expose students to daily, real world challenges facing aquaculturists.

*Field Marine Ecology* (Summer 2004, 2007, 2008; offered next in Summer 2009): This undergraduate/graduate course is an introduction to physical and biological oceanographic sampling techniques conducted onboard a Florida Institute of Oceanography research vessel. Students are instructed in basic coastal navigation techniques, knot tying, and line, cable and winch handling, in addition to training in scientific sampling. Sampling gear includes a CTD, fluorometer, plankton nets, bottle samplers, benthic grab samplers, trawls, and dredges. Students also receive training in using remotely operated vehicles to conduct scientific sampling.

*Introduction to Oceanography and Marine Biology* (Spring 2004, 2005, 2006, 2008, 2009): This non-majors undergraduate course is a survey of physical, chemical, geological, and biological oceanography. The interconnectedness of biota and the physical environment is stressed throughout the course. Beyond the basics of oceanography and marine biology, topical issues such as global warming, eutrophication, and habitat loss are woven into lecture material throughout the course. Laboratory exercises focus on introducing students to the diversity of life in the sea.

*Biology Seminar* (Spring 2006, 2007, 2008): This undergraduate/graduate course is designed to expose students to current research in a great diversity of biology sub-fields. Local, regional, and national experts give weekly seminars attended by students and faculty. Students critique the presentations, as well as review relevant peer-reviewed literature.

#### **GRADUATE STUDENT SUPERVISION:**

- Rachel Anderson, NOVA Southeastern University, 2008-date. "Characterization of nocturnal fish assemblages on vessel-reefs and natural reefs of Broward County, Florida, USA"
- Cecelia Louder, University of West Florida (committee chair), 2006-date. "Recruitment dynamics of gray snapper along the west Florida shelf"
- Kate Shepard, University of West Florida (committee chair), 2006-2008. "King mackerel population dynamics and stock mixing in the U.S. Atlantic and Gulf of Mexico"
- Michelle Zapp, Louisiana State University, 2005-date. "Population connectivity in Gulf of Mexico red snapper"
- Dustin Addis, University of West Florida (committee chair), 2005-2008. "Fishing effects on northern Gulf of Mexico artificial reef fish communities"
- Beverly Barnett, University of West Florida (committee chair), 2005-2008 "Estimating the source of red snapper recruits to the west Florida shelf with otolith chemistry"
- Suzanne Gibson, University of West Florida (committee co-chair with Richard Snyder), 2004-2008. "Distinguishing hatchery reared from wild juvenile red snapper with otolith chemistry"
- Michael Dance, University of West Florida (committee chair), 2004-2007. "Reef fish community structure at unpublished artificial reef sites of northwest Florida: Implications for no-harvest refugia"
- Nicole Morris, University of West Florida (committee chair), 2004-2007. "The artificial reef effect of deepsea shipwrecks in the northern Gulf of Mexico"
- Sarah Branson, University of West Florida (committee chair), 2004-2007. "Lizardfish, *Synodus foetens*, ecology in the north central Gulf of Mexico and the effect of shrimp trawl bycatch"
- Morgan Kilgour, University of Alaska Fairbanks and Texas A&M University at Corpus Christi, 2004-2007. "Bathymetric and spatial distribution of decapod crustaceans on deep shipwrecks in the Gulf of Mexico"
- Craig Newton, University of South Alabama (committee co-chair with Robert Shipp), 2002-2007. "Habitat effects on juvenile red snapper density, growth, and diet in the north central Gulf of Mexico"
- David Wells, Louisiana State University, 2003-2007. "The effects of trawling and habitat on red snapper and the associated community"
- Kevan Gregalis, University of South Alabama, 2003-2006. "Fish utilization of restored oyster reefs"

- Todd Clardy, University of South Alabama, 2002-2006 (committee co-chair with Robert Shipp). "Migratory group discrimination between eastern Gulf of Mexico and Atlantic king mackerel (*Scomberomorus cavalla*) using otolith shape analysis"
- Melissa Woods, University of South Alabama, 2000-2003. "Reproductive biology of red snapper, *Lutjanus campechanus*, in the Northern Gulf of Mexico"

#### **HONORS AND AWARDS OF DIRECTED GRADUATE STUDENTS:**

- Kate Shepard: Awarded a Graduate Research Fellowship to pursue a doctoral degree in the Department of Oceanography and Coastal Studies at Louisiana State University beginning Winter 200p. Dissertation Advisor: Dr. Kenneth Rose.
- Kate Shepard: Voted Outstanding Graduate Student in Biology for 2007-08 by the UWF Biology Faculty.
- Kate Shepard: Best Student Presentation for "Estimating the contribution of Atlantic king mackerel to winter mixed-stock fisheries off south Florida" presented at the 28<sup>th</sup> Annual Meeting of the Florida Chapter of the American Fisheries Society, February 19-21, 2008.
- Michael Dance: Awarded a Graduate Research Fellowship to pursue a doctoral degree in the Department of Oceanography at Texas A&M University beginning in Fall 2007. Dissertation Advisor: Dr. Jay Rooker.
- Suzanne Gibson: Best Student Poster Presentation for "Contamination profiles in largemouth bass and mullet collected in northwest Florida". 27<sup>th</sup> Annual Meeting of the Florida Chapter of the American Fisheries Society. 20-22 February, Ocala, Florida
- Nicole Morris: Awarded a Knauss Fellowship by Florida Sea Grant for 2007.
- Nicole Morris: Voted Outstanding Graduate Student in Biology for 2005-06 by the Biology Faculty
- Suzanne Gibson: Runner-up Best Student Presentation for "Distinguishing wild from hatchery produced juvenile red snapper with otolith chemistry" presented at the 26<sup>th</sup> Annual Meeting of the Florida Chapter of the American Fisheries Society, February 24-26, 2006.

#### **UNDERGRADUATE DIRECTED INDEPENDENT STUDY STUDENTS:**

- Emily Hasty, University of West Florida, Fall 2008. "Fish systematics techniques".
- George Smith, University of West Florida, Spring 2007. "Marine fish ecology".
- Steven Garner, University of West Florida, Fall 2006. "King mackerel age and growth estimated from otolith microstructure"
- Sean Creekmore, University of West Florida, Summer 2005. "Otolith applications in fisheries biology"
- Steven Garner, University of West Florida, Summer 2005. "Fisheries biology field sampling"
- Whitney Bretana, University of West Florida, Spring 2006. "Systematic ichthyology techniques: Grouper skeleton articulation"
- Sandra Arozqueta, University of West Florida, Spring 2006. "Systematic ichthyology techniques: Grouper skeleton articulation"
- Dinielle Jadwisiak, University of West Florida, Fall 2005. "Clearing and staining techniques for preserved fishes"
- Natalia Hoffman, University of West Florida, Summer 2005. "Distinguishing king mackerel stocks with otolith chemistry"
- Laura Goetz, University of West Florida, Spring 2005. "Distinguishing king mackerel stocks with otolith C and O stable isotope signatures"
- Danielle Ploetz, University of South Alabama, Fall 2003. "Metal accumulation in king mackerel muscle tissue"
- Juliana Oostyen, University of Utah, Fall 2003. "Red snapper, *Lutjanus campechanus*, vermilion snapper, *Rhomboplites aurorubens*, and gray triggerfish, *Balistes caprisacus*, feeding from artificial reefs off the coast of Alabama"
- Justin Zabrecky, Spring Hill College, Fall 2002. "Diet of juvenile red snapper in the north central Gulf of Mexico"

#### **HONORS AND AWARDS OF DIRECTED UNDERGRADUATE STUDENTS:**

- Sean Creekmore: Awarded a Graduate Research Assistantship to pursue a master's degree in the Coastal Fisheries Institute within the Department of Oceanography at Louisiana State University beginning in Fall 2007. Thesis Advisor: Dr. Ken Rose.
- Steven Garner: Awarded a Graduate Research Assistantship to pursue a master's degree in the Coastal Fisheries Institute within the Department of Oceanography at Louisiana State University beginning in Fall 2007. Thesis Advisor: Dr. Rick Shaw.
- Steven Garner: Bagelheads Award for UWF Sea Stars poster presentation "Use of stable isotope analysis to infer trophic position and ontogenetic diet shifts in estuarine-dependent fishes", April 2007.
- Steven Garner: Undergraduate Research Program Grant (\$1,000; WFP faculty sponsor), Ontogenetic Shifts in Diet of the Pinfish (*Lagodon rhomboides*).

## SCHOLARSHIP

### RESEARCH INTERESTS:

Marine Biology and Ecology  
 Biological Oceanography  
 Fish Population Dynamics  
 Fish Population Structure and Connectivity  
 Early Life History of Fishes  
 Fisheries Management

### PEER REVIEWED PUBLICATIONS:

- \*Wells, R.J.D., J.H. Cowan, Jr., and W.F. Patterson, III. 2008. Habitat use and effect of shrimp trawling on fish and invertebrate communities over the northern Gulf of Mexico continental shelf. *ICES Journal of Marine Science* 65:1610-1619.
- \*Wells, R.J.D., J.H. Cowan, Jr., W.F. Patterson, III, and C.J. Walters. 2008. Trawling effects and habitat selection on life history parameters of Gulf of Mexico red snapper. *Canadian Journal of Fisheries and Aquatic Sciences* 65:2399-2411.
- \*Jeffers, S.A. W.F. Patterson, III, and J.H. Cowan, Jr. 2008. Habitat and bycatch effects on inshore lizardfish, *Synodus foetens*, population parameters in the north central Gulf of Mexico. *U.S. Fishery Bulletin* 106:417-426.
- Patterson, W.F., III, J.H. Cowan, Jr., C.A. Wilson, and Z. Chen. 2008. Temporal and spatial variability in juvenile Gulf of Mexico red snapper otolith elemental signatures. *Transactions of the American Fisheries Society*. 137:521-532.
- \*Clardy, T.R., W.F. Patterson, III, D.A. DeVries, and C. Palmer. 2008. Spatial and temporal variability in the relative contribution of U.S. king mackerel (*Scomberomorus cavalla*) stocks to winter mixed fisheries off South Florida. *U.S. Fishery Bulletin* 106:152-160.
- \*Wells, R.J.D., \*K.M. Boswell, J.H. Cowan, Jr., and W.F. Patterson, III. 2008. Relative catchability of sampling gears targeting red snapper in the northern Gulf of Mexico. *Fisheries Research* 89:294-299.
- Strelcheck, A.J, J.H. Cowan, Jr. and W.F. Patterson, III. 2007. Site fidelity, movement, and growth of red snapper, *Lutjanus campechanus*: Implications for artificial reef management. Pages 135-148 in W.F. Patterson, III, J.H. Cowan, Jr., D.A. Nieland, and G.R. Gitzhugh, editors. *Population Ecology and Fisheries of U.S. Gulf of Mexico Red Snapper*. American Fisheries Society. Bethesda, Maryland.
- Patterson, W.F., III. 2007. A review of Gulf of Mexico red snapper movement studies: Implications for population structure. Pages 221-236 in W.F. Patterson, III, J.H. Cowan, Jr., D.A. Nieland, and G.R. Gitzhugh, editors. *Population Ecology and Fisheries of U.S. Gulf of Mexico Red Snapper*. American Fisheries Society. Bethesda, Maryland.
- Patterson, W.F., III, C.A. Wilson, J.H. Cowan, Jr., S.J. Bentley, T.A. Henwood, Y.C. Allen, and \*T.A. Dufrene. 2005. Delineating essential juvenile red snapper habitat in the north central Gulf of Mexico. Pages 277-288 in P.W. Barnes and J.P. Thomas, editors. *Effects of Fishing on Benthic Habitats*. American Fisheries Society, Bethesda.
- Patterson, W.F., III and J.H. Cowan, Jr. 2003. Site fidelity and dispersion of tagged red snapper, *Lutjanus campechanus*, in the northern Gulf of Mexico. Pages 181-194 in D.R. Stanley and A. Scarborough-Bull, editors. *Fisheries, Reefs, and Offshore Development*. American Fisheries Society, Bethesda.
- Patterson, W.F., III, J.H. Cowan, Jr., C.A. Wilson, and R.L. Shipp. 2001. Age and growth of red snapper from an artificial reef area in the northern Gulf of Mexico. *U.S. Fishery Bulletin*, 99:617-627.
- Patterson, W.F., III, J.C. Watterson, R.L. Shipp, and J.H. Cowan, Jr. 2001. Movement of tagged red snapper in the northern Gulf of Mexico. *Transactions of the American Fisheries Society*, 130:533-545.
- \*Watterson, J.C., \*W.F. Patterson, III, R.L. Shipp, and J.H. Cowan, Jr. 1998. Impact of tropical cyclones on movement of red snapper (*Lutjanus campechanus*) in the north central Gulf of Mexico. *Gulf of Mexico Science*, 16:92-104.
- \*Patterson, W.F., III, J.H. Cowan, Jr., E.Y. Graham, and W.B. Lyons. 1998. Otolith microchemical fingerprints of age-0 red snapper, *Lutjanus campechanus*, from the northern Gulf of Mexico. *Gulf of Mexico Science*, 16:83-91.

\*Asterisks indicate student authors throughout this CV.

**PEER REVIEWED MANUSCRIPTS IN REVIEW:****PEER REVIEWED MANUSCRIPTS IN PREPARATION:**

- \*Barnett, B.K. and W.F. Patterson, III. *In Prep*. The effect of coring and pulverizing juvenile red snapper otoliths on their chemical signatures. For submission to *Journal of Fish Biology*.
- Patterson, W.F., III, J.H. Cowan, Jr., C.A. Wilson, and Z. Chen. *In Prep*. Is Gulf of Mexico red snapper a marine metapopulation? For submission to *Marine Ecology Progress Series*.
- \*Gibson, S.M., W.F. Patterson, III, R.P. Phelps, W.P. Patterson, and Z. Chen. *In Prep*. Otolith elemental and stable isotope signatures distinguish hatchery from wild red snapper juveniles. For submission to *North American Journal of Fisheries Management*.
- \*Morris, N.M.B., W.F. Patterson, III, and R.A. Church. *In Prep*. Community structure of fishes associated with deepwater shipwreck sites in the northern Gulf of Mexico. For submission to *Journal of Deepsea Research*.

**BOOKS:**

- Patterson, W.F., III, J.H. Cowan, Jr., D.A. Nieland, and G.R. Gitzhugh, editors. 2007. *Population Ecology and Fisheries of U.S. Gulf of Mexico Red Snapper*. American Fisheries Society. Bethesda, Maryland. 361 pp.
- Church, R., D. Warren, R. Cullimore, L. Johnston, \*M. Kilgour, J. Moore, \*N. Morris, W.F. Patterson, III, W. Schroeder, and T. Shirley. 2007. *A Study of Living History: Deep WWII Shipwrecks in the Gulf of Mexico*. Past Foundation Press. Columbus, Ohio. 239 pp.

**PUBLISHED PROCEEDINGS:**

- Patterson, W.F., III, \*Dance, M.A., and \*D.T. Addis. *In Press*. Development of a remotely operated vehicle based methodology to estimate fish community structure at artificial reef sites in the northern Gulf of Mexico. *Proceedings of the Gulf and Caribbean Fisheries Institute*.
- Patterson, W.F., III. 2009. The Standing Scientific and Statistical Committee's Role in Peer Review and Catch Limits: Gulf of Mexico. Pages 41-42 in Witherell, D., and P. Dalzell, editors. First National Meeting of the Regional Fishery Management Councils' Scientific and Statistical Committees. Report of a Workshop on Developing Best Practices for SSCs. Western Pacific Regional Fishery Management Council, Honolulu, Hawaii, November 12-14, 2008. 61 pp.
- \*Shepard, K. W.F. Patterson, III, D.A. DeVries, and C. Palmer. 2008. Age and growth and stock mixing in U.S. Gulf of Mexico and south Atlantic king mackerel (*Scomberomorus cavalla*). *Proceedings of the Gulf and Caribbean Fisheries Institute* 60:391-397.
- \*Addis, D.T., W.F. Patterson, III, and M.A. Dance. 2008. Site fidelity and movement of reef fishes tagged at unreported artificial reef sites off northwest Florida. *Proceedings of the Gulf and Caribbean Fisheries Institute* 60:297-304.
- Patterson, W.F., III and N.M.B. Morris. 2008. Fish community and trophic structure at deepwater shipwreck sites in the northern Gulf of Mexico. Pages 124-128 in McKay, M. and J. Nides, editors. Proceedings: Twenty-fourth Gulf of Mexico Information Transfer Meeting. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2008-012. 494 pp.
- \*Wells, R.J.D., \*K.M. Boswell, J.H. Cowan, Jr., and W.F. Patterson, III. 2007. The effectiveness of multiple gear types in sampling red snapper in the northern Gulf of Mexico. *Proceedings of the Gulf and Caribbean Fisheries Institute* 59:215-222.
- Cowan, J.H., Jr., R.F. Shaw, and W.F. Patterson, III. 2003. Platform-recruited reef fish, phase I: Do platforms provide habitat that increases the survival of juvenile reef fishes? Pages 207-221 in McKay, M. and J. Nides, editors. Proceedings: Twenty-first annual Gulf of Mexico Information Transfer Meeting, U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, La. OCS Study MMS 2003-005. 748 pp.
- Patterson, W.F., III, G.W. Ingram, Jr., R.L. Shipp, and J.H. Cowan, Jr. 2002. Indirect estimation of red snapper (*Lutjanus campechanus*) and gray triggerfish (*Balistes capriscus*) release mortality. *Proceedings of the Gulf and Caribbean Fisheries Institute* 53:526-536.
- Patterson, W.F., III, J.H. Cowan, Jr., C.A. Wilson, and N. Julien. 2001. Discriminating between age-0 red snapper, *Lutjanus campechanus*, nursery areas in the northern Gulf of Mexico using otolith microchemistry. *Proceedings of the Gulf and Caribbean Fisheries Institute* 52:74-86.
- Ingram, G.W. and W.F. Patterson, III. 2001. Movement patterns of red snapper (*Lutjanus campechanus*), greater amberjack (*Seriola dumerili*), and gray triggerfish (*Balistes capriscus*) in the Gulf of Mexico and the utility of marine reserves as management tools. *Proceedings of the Gulf and Caribbean Fisheries Institute* 52:686-699.

Patterson, W.F., III, J.H. Cowan, Jr. and R.L. Shipp. 2000. Red snapper site fidelity to, and speed of movement from, artificial reefs in the northern Gulf of Mexico. Pages 633-650 in McKay, M., J. Nides, and D. Vigil, editors. Proceedings: Gulf of Mexico fish and fisheries: bringing together new and recent research. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, La. OCS Study MMS 2002-004. 674 pp.

**TECHNICAL REPORTS:**

- Patterson, W.F., III, \*D.T. Addis, and \*M.A. Dance. 2008. The effect of unpublished artificial reefs deployed on the northwest Florida shelf. Final Report to Florida Fish and Wildlife Conservation Commission for FWC-06120. 116 pages.
- Church, R., D. Warren, R. Cullimore, L. Johnston, \*M. Kilgour, J. Moore, \*N. Morris, W.F Patterson, III, W. Schroeder, and T. Shirley. 2007. The Archeological and biological analysis of World War II shipwrecks in the Gulf of Mexico: A pilot study of the artificial reef effect in deepwater. U.S. Department of Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2007-015. 387 pages.
- Snyder, R.A., W.F. Patterson, III, \*S. Gibson, \*S. Jeffers, and \*A. Ren. 2007. Pre-sinking environmental assessment for the ex-Oriskany. Final Report to U.S. Navy. 59 pages.
- Patterson, W.F., III and \*S.A. Jeffers. 2006. Fisheries habitat of juvenile red snapper in the northern Gulf of Mexico. Final Report to Louisiana Sea Grant for NOAA-LASG C175664. 22 pages.
- Patterson, W.F., III, \*M.A. Dance, and \*D.T. Addis. 2006. The effect of unpublished artificial reefs deployed on the northwest Florida shelf. Final Report to Florida Fish and Wildlife Conservation Commission for FWC-05027. 134 pages.
- Patterson, W.F., III, \*B.K. Barnett, and \*S.M. Gibson. 2006. Estimation of the source of red snapper recruits to the west Florida shelf with otolith microchemistry. Final Report for NOAA-MarFIN NA04NMF4330367. 38 pages.
- Patterson, W.F. III and \*M.A. Dance. 2005. The effect of unpublished artificial reefs deployed on the northwest Florida shelf. Final Report to Florida Fish and Wildlife Conservation Commission for FWC-04032. 84 pages.
- Patterson, W.F., III and R.A. Rainosek. 2005. Distinguishing northern Gulf of Mexico nursery estuaries of striped mullet, *Mugil cephalus*, with otolith elemental and stable isotope signatures. Final Report for Environmental Protection Agency Star Program-Alabama Center for Estuarine Studies. 8 pages.
- Patterson, W.F., III, R.L. Shipp, \*T.R. Clardy, and Z. Chen. 2004. Discrimination among U.S. south Atlantic and Gulf of Mexico king mackerel stocks with otolith shape analysis and otolith microchemistry. Final Report for NOAA-MarFIN NA17FF2013. 33 pages.
- Cowan, J.H., Jr., \*M. Woods, W.F. Patterson, III, and D.A. Nieland. 2003. Otolith microchemistry (and reproductive biology) portion-Stock structure of red snapper in the northern Gulf of Mexico: Is there management as a single stock justified based on spatial and temporal patterns of genetic variation, otolith microchemistry, and growth rates? Final Report for NOAA-MarFIN NA87FF0425. 75 pages.

**FISHERY ADVISORY PANEL TECHNICAL REPORTS:**

- Southeast Data, Assessment, and Review for King Mackerel (SEDAR16) Data Workshop Group (W.F. Patterson, III and 31 other contributors). 2008. Data Workshop Summary Report-Atlantic and Gulf of Mexico King Mackerel. April 2008. 151 pages.
- Patterson, W.F., III and K.E. Shepard. 2008. Estimation of the stock composition of winter king mackerel fisheries off south Florida with natural tags based on otolith stable isotope chemistry. Technical report submitted to SEDAR16 Data Workshop.
- Joint South Atlantic and Gulf of Mexico Fishery Management Councils Scientific and Statistical Committee (Berkson, J., A. Cooper, J. Dean, D. Gregory, P. Harris, R. Muller, and W.F. Patterson, III ). 2006. King mackerel stock identification. April 2006. 16 pages.
- Southeast Data, Assessment, and Review for King Mackerel (SEDAR5) Review Workshop Group (Sparholt, H. Gibson, W., Jr., J. Grist, H. Hartig, A. Jones, W.F. Patterson, III, M. Terceiro, A. Strelcheck, J. Volstad, and R. Zales, II). 2004. SEDAR5 Review Workshop Summary Report-Atlantic and Gulf of Mexico king mackerel migratory units. April 2004. 19 pages.
- Mackerel Stock Assessment Panel (Patterson, W.F., III, J. Carmichael, and J. Shepard). 2003. Report of the mackerel stock assessment panel-Gulf king mackerel and little tunny. May 2003. Gulf of Mexico Fishery Management Council. 31 pages.
- Mackerel Stock Assessment Panel (Patterson, W.F., III, Ehrhardt, N., D. Gregory, R. Muller, M. Ortiz, and J. Shepard). 2002. Report of the mackerel stock assessment panel-Gulf king mackerel and little tunny . May

2002. Gulf of Mexico Fishery Management Council. 28 pages.
- Reef Fish Stock Assessment Panel (Blanchet, H., S. Diamond, D. Murie, M. Murphy, and W.F. Patterson, III). 2001. Reef fish stock assessment panel report-Gag, vermilion snapper and gray triggerfish. November 2001. Gulf of Mexico Fishery Management Council. 38 pages.
- Mackerel Stock Assessment Panel (Patterson, W.F., III, J. Carmichael, D. Gregory, R. Muller, M. Ortiz, and J. Shepard). 2001. Report of the mackerel stock assessment panel-Atlantic and Gulf king and Spanish mackerels. March 2001. Gulf of Mexico Fishery Management Council. 20 pages.
- Mackerel Stock Assessment Panel (Muller, R., Carmichael J., D. Gregory, W.F. Patterson, III, J. Powers, and J. Shepard). 2000. Report of the mackerel stock assessment panel-Gulf king mackerel and Gulf and Atlantic dolphin. April 2000. Gulf of Mexico Fishery Management Council. 24 pages.
- Mackerel Stock Assessment Panel (Muller, R., Ault, J., D. Gregory, W.F. Patterson, III, J. Scott, and G. Waugh). 1998. Report of the mackerel stock assessment panel-Atlantic and Gulf king and Spanish mackerels. March 1998. Gulf of Mexico Fishery Management Council. 52 pages.

#### **PUBLISHED ABSTRACTS:**

- Bentley, S.J., W.F. Patterson, III, Y. Allen, \*W. Vienne and C. Wilson. 2005. Geoacoustic and geological characterization of juvenile red snapper habitat, northern Gulf of Mexico continental shelf. Pages 313-314 in P.W. Barnes and J.P. Thomas, editors. *Effects of Fishing on Benthic Habitats*. American Fisheries Society, Bethesda.
- \*Dufrene, T.A., S.J. Bentley, W.F. Patterson, III, and C.A. Wilson. 2004. Geological controls on essential red snapper habitat, northern Gulf of Mexico continental shelf. EOS: 84:1.
- \*Patterson, W.F. III, J.H. Cowan, Jr, W.B. Lyons, and B. Graham. 1997. Can northern Gulf of Mexico nursery habitat of young-of-the-year red snapper, *Lutjanus campechanus*, be inferred from otolith microchemistry? Journal of Fish Biology, 51 Supplement A:38.

#### **PRESENTATIONS:**

- Patterson, W.F., III. 2008. Examining the ecological and fishery function of artificial reefs in the north central Gulf of Mexico. Gulf of Mexico Fishery Management Council's Florida and Alabama Habitat Advisory Panel Meeting, 3 December, Tampa, Florida. (invited)
- Patterson, W.F., III. 2008. Gulf of Mexico fisheries, peer review, and applying Magnuson-Stevens Reauthorization Act requirements. National Standing Statistical and Scientific Committee Workshop. 12-14 November, Honolulu, Hawaii. (invited)
- \*Dance, M.A., W.F. Patterson, III, and \*D.T. Addis. 2008. Development of a remotely operated vehicle based methodology to estimate fish community structure at artificial reef sites in the northern Gulf of Mexico. *Gulf and Caribbean Fisheries Institute 61<sup>th</sup> Annual Meeting*. 10-14 November, Gosier, Guadeloupe French West Indies.
- Patterson, W.F., III, A.J. Strelcheck, and C.E. Porch. 2008. Management implications of release mortality and bycatch in the northern Gulf of Mexico reef fish fishery. *138<sup>th</sup> Annual Meeting of the American Fisheries Society*. 17-21 August, Ottawa, Ontario, Canada. (invited)
- Patterson, W.F., III, \*K.E. Shepard, and \*T.R. Clardy. Interannual variability in mixing between Atlantic Ocean and Gulf of Mexico king mackerel stocks estimated with otolith chemical signatures. 2008. *138<sup>th</sup> Annual Meeting of the American Fisheries Society*. 17-21 August, Ottawa, Ontario, Canada.
- \*Lounder, C.A., W.F. Patterson, III, and R.J. Allman. 2008. Recruitment dynamics of gray snapper, *Lutjanus griseus*, among west Florida estuaries. *138<sup>th</sup> Annual Meeting of the American Fisheries Society*. 17-21 August, Ottawa, Ontario, Canada.
- \*Barnett, B.K. and W.F. Patterson, III. 2008. Development of coring methods to extract nursery signatures from red snapper otoliths. *138<sup>th</sup> Annual Meeting of the American Fisheries Society*. 17-21 August, Ottawa, Ontario, Canada.
- Patterson, W.F., III. 2008. Is Gulf of Mexico red snapper a marine metapopulation? *Ashland University*. 1 May, Ashland, Ohio (via webcam; invited).
- \*Addis, D.T., W.F. Patterson, III, and M.A. Dance. 2008. Site fidelity and movement of reef fishes tagged at unreported artificial reef sites off northwest Florida. *27<sup>th</sup> Annual Meeting of the Florida Chapter of the American Fisheries Society*. 19-22 February, Ocala, Florida.
- \*Shepard, K., et al. 2008. Estimating stock mixing in Atlantic and Gulf of Mexico king mackerel. *28<sup>th</sup> Annual Meeting of the Florida Chapter of the American Fisheries Society*. 19-21 February, Ocala, Florida. (Best Student Paper Award).
- \*Lounder, C.A., W.F. Patterson, III, and R.J. Allman. 2008. Recruitment dynamics of gray snapper, *Lutjanus griseus*, among west Florida estuaries. *28<sup>th</sup> Annual Meeting of the Florida Chapter of the American*

- Fisheries Society*. 19-21 February, Ocala, Florida.
- Patterson, W.F., III, \*B.K. Barnett, and S.M. Gibson. 2007. Estimation of the source of red snapper recruits to the west Florida shelf with otolith microchemistry. *17<sup>th</sup> Annual MaRFIN Conference*. 11-12 December, St. Petersburg, Florida.
- \*Addis, D.T., W.F. Patterson, III, and M.A. Dance. 2007. Site fidelity and movement of reef fishes tagged at unreported artificial reef sites off northwest Florida. *Gulf and Caribbean Fisheries Institute 60<sup>th</sup> Annual Meeting*. 5-10 November, Punta Cana, Dominican Republic.
- \*Shepard, K., et al. 2007. Age and growth and stock mixing in Gulf and Atlantic king mackerel. *Gulf and Caribbean Fisheries Institute 60<sup>th</sup> Annual Meeting*. 5-10 November, Punta Cana, Dominican Republic.
- \*Lounder, C.A., W.F. Patterson, III, and R.J. Allman. 2007. Recruitment dynamics of gray snapper, *Lutjanus griseus*, among west Florida estuaries. *Gulf and Caribbean Fisheries Institute 60<sup>th</sup> Annual Meeting*. 5-10 November, Punta Cana, Dominican Republic.
- Patterson, W.F., III, J.H. Cowan, Jr., G.R. Fitzhugh, and D.A. Nieland. 2007. Red snapper ecology and fisheries in the U.S. Gulf of Mexico. *Gulf and Caribbean Fisheries Institute 60<sup>th</sup> Annual Meeting*. 5-10 November, Punta Cana, Dominican Republic.
- \*Addis, D.T., W.F. Patterson, III, and M.A. Dance. 2007. Site fidelity and movement of reef fishes tagged at unreported artificial reef sites off northwest Florida. *Northwest Florida Regional Environmental Symposium*. 5 October, Pensacola, Florida.
- Patterson, W.F., III, R.A. Snyder, K.R. Rao, S. Gibson, S. Jeffers, and A. Ren. 2007. Bioaccumulation of PCBs and mercury in marine fishes off northwest Florida. *Northwest Florida Regional Environmental Symposium*. 5 October, Pensacola, Florida.
- Patterson, W.F., III. 2007. Ecosystem-based fishery management: Transitioning to a more holistic paradigm. National Marine Fisheries Service Beaufort Laboratory. 14 August. Beaufort, North Carolina. (Invited)
- Patterson, W.F., III. 2007. Estimating ecological function of artificial reefs. *Florida Fish and Wildlife Conservation Commission Artificial Reef - Fish Management Science Colloquium*. 24-25 July, Tallahassee, Florida. (invited)
- Patterson, W.F., III, J.H. Cowan, Jr. 2007. Red snapper and Alabama's artificial reefs. *Florida Fish and Wildlife Conservation Commission Artificial Reef - Fish Management Science Colloquium*. 24-25 July, Tallahassee, Florida. (invited)
- Patterson, W.F., III, R.A. Snyder, K.R. Rao, \*S.M. Gibson, \*S.A. Jeffers, and \*A. Ren. 2007. Effects of size, age, and trophic position on bioaccumulation of PCBs and mercury in marine fishes off northwest Florida. *27<sup>th</sup> Annual Meeting of the Florida Chapter of the American Fisheries Society*. 20-22 February, Ocala, Florida.
- \*Barnett, B.K. and W.F. Patterson, III. 2007. Development of coring methods to extract nursery signatures from red snapper otoliths. *27<sup>th</sup> Annual Meeting of the Florida Chapter of the American Fisheries Society*. 20-22 February, Ocala, Florida.
- \*Dance, M.A., W.F. Patterson, III, and \*D.T. Addis. 2007. Succession in reef fish communities at unreported artificial reef sites off northwest Florida. *27<sup>th</sup> Annual Meeting of the Florida Chapter of the American Fisheries Society*. 20-22 February, Ocala, Florida.
- \*Addis, D.T., W.F. Patterson, III, and \*M.A. Dance. 2007. Site fidelity and movement of reef fishes tagged at unreported artificial reef sites off northwest Florida. *27<sup>th</sup> Annual Meeting of the Florida Chapter of the American Fisheries Society*. 20-22 February, Ocala, Florida.
- Snyder, R.A., W.F. Patterson, III, \*S. Gibson, \*S. Jeffers, and \*A. Ren. 2007. Pre-reefing environmental assessment for the *ex-Oriskany*. Meeting with US Navy and EPA. 26 January, Washington, D.C.
- Patterson, W.F., III and N.M.B. Morris. 2007. Fish community and trophic structure at deepwater shipwreck sites in the northern Gulf of Mexico. *24<sup>th</sup> Minerals Management Service Gulf of Mexico Information Transfer Meeting*. 9-11 January, Kenner, Louisiana. (invited)
- Patterson, W.F., III and W.J. Lindberg. 2006. Estimating the ecological function of artificial reefs. Annual Joint Meeting of the Artificial Reef Committees of the Gulf States Marine Fisheries Commission and the Atlantic States Marine Fisheries Commission. 7 November, Tybee Island, Georgia. (invited)
- \*Wells, R.J.D., J.H. Cowan, Jr., and W.F. Patterson, III. 2006. Trawling in the Gulf of Mexico: A study of the effects on red snapper and the associated community. *59<sup>th</sup> Annual Meeting of the Gulf and Caribbean Fisheries Institute*. 6-11 November, Belize City, Belize.
- \*Wells, R.J.D., \*K.M. Boswell, J.H. Cowan, Jr., and W.F. Patterson, III. 2006. The effectiveness of multiple gear types in sampling red snapper in the northern Gulf of Mexico. *59<sup>th</sup> Annual Meeting of the Gulf and Caribbean Fisheries Institute*. 6-11 November, Belize City, Belize.
- \*Wells, R.J.D., Patterson, W.F., III, C.A. Wilson, J.H. Cowan, Jr., S.J. Bentley, and T.A. Henwood. 2006. Fisheries habitat of juvenile red snapper in the northern Gulf of Mexico. *Louisiana Sea Grant Program Assessment*. 13 September, Baton Rouge, Louisiana.

- \*Wells, R.J.D., J.H. Cowan, Jr., and W.F. Patterson, III. 2006. Trawling in the Gulf of Mexico: A study of the effects on red snapper and the associated benthic community. *Louisiana Sea Grant Program Assessment*. 13 September, Baton Rouge, Louisiana.
- Patterson, W.F., III, \*M.A. Dance, and \*D.T. Addis. 2006. Artificial reef research at UWF: Estimating ecological function. *Northwest Florida Artificial Reef Workshop*. 1-2 August, Pensacola, Florida. (Invited)
- Patterson, W.F., III. 2006. A review of Gulf of Mexico red snapper movement studies: Implications for population structure. *14th Annual Southern Division of the American Fisheries Society Meeting*. 8-12 February, San Antonio, Texas.
- \*Gibson, S.M., W.F. Patterson, III, R.P. Phelps, and W.P. Patterson. 2006. Distinguishing wild from hatchery produced juvenile red snapper with otolith chemistry. *14th Annual Southern Division of the American Fisheries Society Meeting*. 8-12 February, San Antonio, Texas.
- \*Newton, D.C., W.F. Patterson, III, J.H. Cowan, Jr. and C.A. Wilson. 2006. Habitat effects on juvenile red snapper density and growth in the northern Gulf of Mexico. *14th Annual Southern Division of the American Fisheries Society Meeting*. 8-12 February, San Antonio, Texas.
- Strelcheck, A.J., J.H. Cowan Jr. and W.F. Patterson, III. 2006. Site fidelity, movement, and growth of red snapper in the north central Gulf of Mexico. *14th Annual Southern Division of the American Fisheries Society Meeting*. 8-12 February, San Antonio, Texas.
- \*Jeffers, S.A. and W.F. Patterson, III. 2006. Ecology of inshore lizardfish in the northern Gulf of Mexico. *14th Annual Southern Division of the American Fisheries Society Meeting*. 8-12 February, San Antonio, Texas.
- Patterson, W.F., III, J.H. Cowan, Jr., C.A. Wilson, and Z Chen. 2006. Population connectivity in Gulf of Mexico red snapper inferred from otolith elemental signatures. *26<sup>th</sup> Annual Meeting of the Florida Chapter American Fisheries Society*. 24-26 February, Ocala, Florida. (Best Paper Award).
- \*Gibson, S.M., W.F. Patterson, III, R.P. Phelps, and W.P. Patterson. 2006. Distinguishing wild from hatchery produced juvenile red snapper with otolith chemistry. *26<sup>th</sup> Annual Meeting of the Florida Chapter American Fisheries Society*. 24-26 February, Ocala, Florida. (Runner-up, Best Student Paper).
- \*Dance, M.A. and W.F. Patterson, III. 2006. Estimating reef fish communities at artificial reef sites using a remotely operated vehicle. *26<sup>th</sup> Annual Meeting of the Florida Chapter American Fisheries Society*. 24-26 February, Ocala, Florida.
- \*Jeffers, S.A. and W.F. Patterson, III. 2006. Ecology of inshore lizardfish in the northern Gulf of Mexico. *26<sup>th</sup> Annual Meeting of the Florida Chapter American Fisheries Society*. 24-26 February, Ocala, Florida.
- \*Morris, N.M.B. and W.F. Patterson, III. 2006. Ecology of fishes associated with deep sea shipwrecks in the northern Gulf of Mexico. *26<sup>th</sup> Annual Meeting of the Florida Chapter American Fisheries Society*. 24-26 February, Ocala, Florida.
- Patterson, W.F., III. 2006. Otolith applications in fisheries ecology. *Department of Biology Seminar Series, University of West Florida*. 3 February. Pensacola, Florida.
- \*Morris, N.M.B. and W.F. Patterson III. 2005. The artificial reef effect of World War II era shipwrecks in the northern Gulf of Mexico. *135<sup>th</sup> Annual Meeting of the American Fisheries Society*. 22-24 September, Anchorage, Alaska.
- Patterson, W.F., III. 2005. Spatial and temporal variability in otolith chemical signatures used to estimate population connectivity in marine fishes. *135<sup>th</sup> Annual Meeting of the American Fisheries Society*. 22-24 September, Anchorage, Alaska.
- Patterson, W.F., III. 2005. Report of the southeast data assessment and review-Gulf of Mexico king mackerel assessment review panel. *Gulf of Mexico Fishery Management Council's Standing Scientific and Statistical Committee Meeting*. 27 July, New Orleans, Louisiana.
- Patterson, W.F., III. 2005. Otolith applications in fisheries biology. *University of Southern Mississippi Gulf Coast Research Laboratory*. 7 April, Ocean Springs, Mississippi. (Invited)
- Patterson, W.F., III, J.H. Cowan, Jr. and J.A. Bohnsack. 2005. Attraction vs. production of red snapper on Alabama artificial reefs: Conceptual models, empirical evidence, and future directions. *8th International Conference on Artificial Reefs and Related Aquatic Habitats*. 10-14 April, Biloxi, Mississippi.
- Patterson, W.F., III, Z. Chen, and D.A. Winter. 2005. Distinguishing striped mullet nursery estuaries in the northern Gulf of Mexico with otolith chemical signatures. *25<sup>th</sup> Annual Meeting of the Florida Chapter of the American Fisheries Society*. 22-24 February, Ocala, Florida.
- \*Morris, N. M. B., W.F. Patterson, III, and R. Church. 2005. The artificial reef effect of World War II era shipwrecks in the Northern Gulf of Mexico. *25<sup>th</sup> Annual Meeting of the Florida Chapter of the American Fisheries Society*. 22-24 February, Ocala, Florida.
- Cowan, J.H., Jr. and W.F. Patterson, III. 2004. Attraction vs. production of red snapper, *Lutjanus campechanus*, on Alabama artificial reefs: conceptual models and evidence. *VI Congreso de Ciencias del Mar*. 1-5 December, Havana, Cuba.

- Patterson, W.F., III. 2004. Report of the southeast data assessment and review Gulf of Mexico king mackerel assessment review panel. *Gulf of Mexico Fishery Management Council's Standing Scientific and Statistical Committee Meeting*. 8 September, Tampa, Florida.
- \*Clardy, T.R., W.F. Patterson, III, D.A. DeVries, and C. Palmer. 2004. Stock discrimination of king mackerel, *Scomberomorus cavalla*, in U.S. waters with otolith morphology. *Third International Symposium on Fish Otolith Research and Application*. 11-16 July, Townsville, Australia.
- Patterson, W.F., III, J.H. Cowan, Jr., C.A. Wilson, and Z. Chen. 2004. Post-settlement mixing in Gulf of Mexico red snapper, *Lutjanus campechanus*, inferred from otolith chemistry. *Third International Symposium on Fish Otolith Research and Application*. 11-16 July, Townsville, Australia.
- \*Newton, D.C., W.F. Patterson, III, C.A. Wilson, J.H. Cowan, Jr., S.J. Bentley, and J. J. Jackson. 2004. Juvenile red snapper essential fish habitat in the north central Gulf of Mexico. *Alabama Fisheries Association 21<sup>st</sup> Annual Meeting*. 10-12 February, Gulf Shores, Alabama.
- \*Clardy, T.R., W.F. Patterson, III, D.A. DeVries, and C. Palmer. 2004. Stock discrimination between Atlantic and Gulf of Mexico king mackerel, *Scomberomorus cavalla*, with otolith shape analysis. *Alabama Fisheries Association 21<sup>st</sup> Annual Meeting*. 10-12 February, Gulf Shores, Alabama.
- \*Dufrene, T.A., S.J. Bentley, W.F. Patterson, III, and C.A. Wilson. 2004. Geological controls on essential red snapper habitat, northern Gulf of Mexico continental shelf. *12<sup>th</sup> Ocean Sciences Meeting*. 26-30 January, Portland, Oregon.
- Patterson, W.F., III, \*T.R. Clardy, D.A. DeVries, Z. Chen, and R.L. Shipp. 2003. Discrimination among U.S. south Atlantic and Gulf of Mexico king mackerel stocks with otolith shape analysis and otolith microchemistry. *15<sup>th</sup> Annual MaRFIN Conference*. 3-4 December, Biloxi, Mississippi.
- \*Ploetz, D.M., W.F. Patterson, III, and T.M. Rice. 2003. Heavy Metals in tissues of Northern Gulf of Mexico Odontoceti, King Mackerel and Prey. *24th Annual Meeting of the Society of Environmental Toxicology and Chemistry*. 9-13 November, Austin, Texas.
- Patterson, W.F., III. 2003. Metapopulation structure of Gulf of Mexico red snapper. *University of Massachusetts Department of Biology*. 10 October, Amherst, Massachusetts. (Invited)
- Patterson, W.F., III, J.H. Cowan, Jr., C.A. Wilson, and Z. Chen. 2003. Metapopulation structure of red snapper in the northern Gulf of Mexico inferred from otolith chemistry. *Gulf of Mexico Fishery Management Council*. 16 September, Baton Rouge, Louisiana.
- Patterson, W.F., III. 2003. Fisheries research in the northern Gulf of Mexico. *National Science Foundation-Center for Ocean Science Education Excellence*. 3 June, Dauphin Island, Alabama. (Invited)
- \*Clardy, T.R., W.F. Patterson, III, D.A. DeVries, and C. Palmer. 2003. Stock discrimination between Atlantic and Gulf of Mexico king mackerel with otolith morphology. *10<sup>th</sup> Annual University of South Alabama Research Forum*. 21-25 April, Mobile, Alabama.
- \*Newton, D.C., \*J.J. Jackson, W.F. Patterson, III, and J.H. Cowan, Jr. 2003. Habitat and ontogenetic effects on juvenile red snapper diet in the north central Gulf of Mexico. *10<sup>th</sup> Annual University of South Alabama Research Forum*. 21-25 April, Mobile, Alabama.
- Patterson, W.F., III, J.H. Cowan, Jr., C.A. Wilson, and Z. Chen. 2002. Stock Structure of red snapper in the northern Gulf of Mexico: Is their management as a unit stock justified based on spatial and temporal patterns in otolith microchemistry? *National Oceanic and Atmospheric Administration Marine Fisheries Initiative 14<sup>th</sup> Annual Conference*. 10-11 December, Biloxi, Mississippi.
- Bentley, S.J., W.F. Patterson, III, Y. Allen, \*W. Vienne and C.A. Wilson. 2002. Geoacoustic and geological characterization of juvenile red snapper habitat, northern Gulf Of Mexico continental shelf. *Ecological Society of America Symposium on Effects of Fishing Activities on Benthic Habitats*. 12-14 November, Tampa, Florida.
- Patterson, W.F., III, C.A. Wilson, S.J. Bentley, J.H. Cowan, Jr., Y.C. Allen, and \*T.A. Henwood. 2002. Delineating essential juvenile red snapper habitat in the northern Gulf of Mexico. *Ecological Society of America Symposium on Effects of Fishing Activities on Benthic Habitats*. 12-14 November, Tampa, Florida.
- Patterson, W.F., III, J.H. Cowan, Jr., C.A. Wilson, and Z. Chen. 2002. Otolith elemental signatures of age-0 red snapper nursery areas in the northern Gulf of Mexico. *American Society of Limnology and Oceanography 2002 Summer Meeting*. 10-14 June, Victoria, British Columbia, Canada.
- Patterson, W.F., III. 2002. Mackerel stock assessment panel 2002 report. *Gulf of Mexico Fishery Management Council Meeting*. 11 September, New Orleans, Louisiana.
- Patterson, W.F., III, D.A. DeVries, C.A. Wilson, and Z. Chen. 2002. Otolith elemental signatures of king mackerel stocks in United States' waters of the Atlantic Ocean and Gulf of Mexico. *Alabama Fisheries Association 19<sup>th</sup> Annual Meeting*. 10-12 February, Gulf Shores, Alabama.
- Patterson, W.F., III. 2002. Gulf of Mexico cobia stock assessment report. *Gulf of Mexico Fishery Management Council Meeting*. 23 January, Brownsville, Texas.

- Patterson, W.F., III, C.A. Wilson, D.A. DeVries, and Z. Chen. 2001. Discrimination among U.S. king mackerel, *Scomberomorus cavalla*, stocks with otolith chemistry. *Gulf and Caribbean Fisheries Institute 54<sup>th</sup> Annual Meeting*. 6-10 November, Providenciales, Turks and Caicos Islands, British West Indies.
- Patterson, W.F., III. 2001. Mackerel stock assessment panel 2001 report. *Gulf of Mexico Fishery Management Council Meeting*. 16 May, New Orleans, Louisiana.
- Patterson, W.F., III. 2001. Mackerel stock assessment panel 2000 default control rule risk analysis. *Gulf of Mexico Fishery Management Council Meeting*. 26 March, Mobile, AL
- Patterson, W.F., III, J.H. Cowan, Jr., and R.L. Shipp. 2000. Red snapper site fidelity to, and movement from, artificial reef sites off Alabama. *Minerals Management Service Information Transfer Meeting: Gulf of Mexico Fish and Fisheries*. 24-26 October, New Orleans, Louisiana.
- Patterson, W.F., III, J.H. Cowan, Jr., C.A. Wilson, and Z. Chen. 2000. Otolith microchemical tags of juvenile red snapper nursery areas in the northern Gulf of Mexico. *American Fisheries Society Early Life History Section 24<sup>th</sup> Annual Larval Fish Conference*. 6-10 November, Gulf Shores, Alabama.
- Patterson, W.F., III, \*G.W. Ingram, R.L. Shipp, and J.H. Cowan, Jr. 2000. Indirect estimation of red snapper and gray triggerfish release mortality. *Gulf and Caribbean Fisheries Institute 53<sup>rd</sup> Annual Meeting*. 6-10 November, Biloxi, Mississippi.
- Patterson, W.F., III. 2000. Otolith applications in fisheries biology. *Louisiana State University Marine Science Graduate Student Organization*. 18 October, Baton Rouge, Louisiana. (Invited)
- Patterson, W.F., III. 2000. Mackerel stock assessment panel 2000 report. *Gulf of Mexico Fishery Management Council Meeting*. 15 May, Destin, Florida.
- Patterson, W.F., III, J.H. Cowan, Jr., J.R. Gold, and C.A. Wilson. 2000. Stock structure of northern Gulf of Mexico red snapper: an interdisciplinary approach. *American Fisheries Society Southern Division Midyear Meeting*. 31 January-4 February, Savannah, Georgia.
- \*Ingram, G.W. and W.F. Patterson, III. 1999. Movement patterns of red snapper (*Lutjanus campechanus*), greater amberjack (*Seriola dumerili*), and gray triggerfish (*Balistes capricus*) in the Gulf of Mexico and the utility of marine reserves as management tools. *Gulf and Caribbean Fisheries Institute 52<sup>nd</sup> Annual Meeting*. 1-5 November, Key West, Florida.
- \*Patterson, W.F., III, J.H. Cowan, Jr., C.A. Wilson, and N. Julien. 1999. Discriminating between age-0 red snapper, *Lutjanus campechanus*, nursery areas in the northern Gulf of Mexico using otolith microchemistry. *Gulf and Caribbean Fisheries Institute 52<sup>nd</sup> Annual Meeting*. 1-5 November, Key West, Florida.
- \*Patterson, W.F., III, J.C. \*Watterson, R.L. Shipp, and J.H. Cowan. 1999. Site fidelity and movement of red snapper from an artificial reef area off Alabama. *American Fisheries Society 129<sup>th</sup> Annual Meeting*. 29 August-2 September, Charlotte, North Carolina.
- \*Patterson, W.F., III. 1999. Population ecology of northern Gulf of Mexico red snapper. *University of Mobile Biology Department*. 5 May, Mobile, Alabama. (Invited)
- \*Patterson, W.F., III, J.H. Cowan, Jr., E.Y. Graham, and W.B. Lyons. 1998. Otolith microchemical fingerprints of age-0 red snapper, *Lutjanus campechanus*, from the northern Gulf of Mexico. *American Fisheries Society Early Life History Section 22<sup>nd</sup> Annual Larval Fish Conference*. 9-12 July, Ann Arbor, Michigan.
- \*Patterson, W.F., III, J.H. Cowan, W.B. Lyons, and E.Y. Graham. 1997. Northern Gulf of Mexico nursery habitat of red snapper *Lutjanus campechanus* inferred from otolith microchemistry. *American Fisheries Society 127<sup>th</sup> Annual Meeting*. 24-28 August, Monterey, California.
- Cowan, J.H., Jr., R.L. Shipp, and \*W.F. Patterson, III. 1997. Artificial reefs and stock enhancement: the role of fish movement. *American Fisheries Society 127<sup>th</sup> Annual Meeting*. 24-28 August, Monterey, California.
- \*Patterson, W.F., III, J.H. Cowan, Jr., W.B. Lyons, and E.Y. Graham. 1997. Can northern Gulf of Mexico nursery habitat of young-of-the-year red snapper *Lutjanus campechanus* be inferred from otolith microchemistry? *Fisheries Society of the British Isles Annual International Symposium: Ichthyoplankton Ecology*. 8-11 July, Galway, Ireland.
- Patterson, W.F. III, J.H. Cowan, Jr., and R.S. Birdsong. 1996. Nutritional condition of striped bass, *Morone saxatilis*, larvae as determined by constituent lipid analysis. *American Fisheries Society Early Life History Section 20<sup>th</sup> Annual Larval Fish Conference*. 13-19 June, New Orleans, Louisiana.
- \*Watterson, J.C., \*W.F. Patterson, III, and R.L. Shipp. 1996. Site fidelity and other life history data from a mark/recapture study of red snapper, *Lutjanus campechanus*, in the north central Gulf of Mexico. *American Fisheries Society Southern Division Meeting*. 22-26 February, Mobile, Alabama.
- \*Patterson, W.F., III, \*J.C. Watterson, and R.L. Shipp. 1996. Impact of tropical cyclones on the movement of red snapper, *Lutjanus campechanus*, in the north central Gulf of Mexico. *American Fisheries Society Southern Division Midyear Meeting*. 22-26 February, Mobile, Alabama.

**GRANTS:**

- Principal Investigator, "Examination of red snapper fisheries ecology on the northwest Florida shelf." 2009. Florida Fish and Wildlife Research Institute. \$99,978/1 yr. (pending)
- Principal Investigator, "Minimizing discards in the Gulf of Mexico recreational red snapper fishery: Hook selectivity and the efficacy of a "first fish" rule". 2008. NOAA Fisheries Cooperative Research Program. \$294,421/2 yrs. (pending)
- Principal Investigator, "The effect of unpublished artificial reefs deployed on the northwest Florida shelf." 2008. Florida Fish and Wildlife Conservation Commission. \$59,980/1 yr.
- Principal Investigator, "Migratory pathways and population connectivity in Gulf of Mexico king mackerel: A pilot study using next generation pop-up satellite archival tags." 2008. NOAA-MaRFIN. \$41,930/2 yr.
- Co-Principal Investigator, "Marine field ecology shipboard laboratory" (with R.A. Snyder). 2008. Florida Institute of Oceanography. \$8,400/1 yr.
- Principal Investigator, "Enhancement of the University of West Florida's marine biology program's underwater teaching and research capabilities" (with R.A. Snyder). 2007. University of West Florida Pace Academic Development. \$42,803/1 yr.
- Principal Investigator, "The effect of unpublished artificial reefs deployed on the northwest Florida shelf." 2007. Florida Fish and Wildlife Conservation Commission. \$36,829/1 yr.
- Co-Principal Investigator, "Marine field ecology shipboard laboratory" (with R.A. Snyder). 2007. Florida Institute of Oceanography. \$11,200/1 yr.
- Principal Investigator, "The effect of unpublished artificial reefs deployed on the northwest Florida shelf". 2006. Florida Fish and Wildlife Conservation Commission. \$79,430/1 yr.
- Co-Principal Investigator, "Pre-Reefing Environmental Assessment for the *ex-Oriskany*." (with R.A. Snyder). 2006. U.S. Navy/Computer Science Corporation. \$315,056/1 yr.
- Principal Investigator, "A cooperative research approach to estimating population dynamics and stock mixing in king mackerel." (with D.A. DeVries as Co-PI and B. Hartig and J. Thierry as cooperators). 2006. NOAA Fisheries. \$317,325/2 yrs.
- Principal Investigator, "Recruitment dynamics and population connectivity of gray snapper, *Lutjanus griseus*, among west Florida estuarine systems" (with R.S. McBride and R.J. Allman, Co-PIs). 2006. Florida Sea Grant. \$146,761/2 yrs.
- Principal Investigator, "Distinguishing Atlantic and Gulf of Mexico king mackerel, *Scomberomorus cavalla*, with otolith O and C stable isotope values". 2005. UWF Faculty Scholarly and Creative Activity Award. \$2,000/1yr.
- Principal Investigator, "The effect of unpublished artificial reefs deployed on the northwest Florida shelf". 2005. Florida Fish and Wildlife Conservation Commission. \$59,899/1 yr.
- Principal Investigator, "Estimation of the source of red snapper recruits to west Florida and south Texas with otolith chemistry: Implications for stock structure" (with J.H. Cowan). 2005. NOAA-MaRFIN. \$361,825/3 yrs.
- Principal Investigator, "The effect of unpublished artificial reefs deployed on the northwest Florida shelf". 2004. Florida Fish and Wildlife Conservation Commission. \$59,940/1 yr.
- Principal Investigator, "Post-settlement movement of Gulf of Mexico red snapper: Implications for metapopulation structure". 2004. NOAA-MaRFIN. \$71,931/2 yrs.
- Principal Investigator for UWF portion, "The archeological and biological analysis of World War II shipwrecks in the Gulf of Mexico: a pilot study of the artificial reef effect in deep water" [with R.A. Church (PI), D. Warren, T. Shirley, W. Schroeder, R. Cullimore, and D. Aig, Co-PIs]. 2004. Minerals Management Service. 349,950/2 yrs. (UWF = \$49,389/2 yrs.)
- Principal Investigator for UWF portion, "Fisheries habitat of juvenile red snapper in the northern Gulf of Mexico" (with J.H. Cowan, Jr., S.J. Bentley, C.A. Wilson, and T.A. Henwood, Co-PIs). 2004. NOAA-Sea Grant. \$377,181/2 yrs. (UWF = \$66,856/2 yrs.)
- Principal Investigator, "Intergovernmental personnel assignment to NOAA/NMFS for groundfish data analysis". 2002. \$70,500/2 yrs.
- Principal Investigator, "Fisheries habitat of juvenile red snapper in the northern Gulf of Mexico". 2002. Mississippi-Alabama Sea Grant. \$9,631/1 yr.
- Principal Investigator, "Fisheries habitat of juvenile red snapper in the northern Gulf of Mexico" (with S.J. Bentley, J.H. Cowan, Jr., C.A. Wilson, and T.A. Henwood, Co-PIs). 2001. Mississippi-Alabama and Louisiana Sea Grant. \$435,240/2 yrs.

- Principal Investigator, "Natural biogeochemical tags of striped mullet, *Mugil cephalus*, estuarine nursery areas in the north central Gulf of Mexico" (with A.P. Rainosek, Co-PI). 2001. U.S. Environmental Protection Agency-Alabama Center for Estuarine Studies. \$87,755/2 yr.
- Co-Principal Investigator, "Discrimination among U.S. south Atlantic and Gulf of Mexico king mackerel stocks with otolith shape analysis and otolith microchemistry" (with R.L. Shipp). 2001. NOAA-MaRFIN. \$189,562/3 yrs.
- Co-Principle Investigator, "Determination of geotechnical and biological properties in the Louisiana artificial reef program's reef planning areas: South Timbalier" (with C.A. Wilson and H.H. Roberts). 2000. Louisiana Department of Wildlife and Fisheries. \$49,993/1yr.
- Co-Principal Investigator, "Use of otolith microchemistry to discriminate between U.S. south Atlantic and Gulf of Mexico stocks of king mackerel" (with C.A. Wilson). 1999. Louisiana Sea Grant. \$12,750/1 yr.
- Co-Principal Investigator, "Temporal stability in age-0 red snapper otolith microchemical fingerprints from the northern Gulf of Mexico" (with J.H. Cowan, Jr.). 1998. Alabama Department of Conservation. \$21,400.
- Principal Investigator, "Biogeochemical tracers in red snapper otoliths: a test of the unit stock hypothesis". 1996-1997. Mississippi-Alabama Sea Grant Graduate Student Fellowship. \$6,000.

#### **COLLABORATIONS ESTABLISHED:**

##### **University of West Florida**

William Huth, Department of Marketing and Economics  
Ranga Rao, Center for Environmental Diagnostics and Bioremediation  
Richard Snyder, Center for Environmental Diagnostics and Bioremediation

##### **State of Florida**

Robert Allman, National Marine Fisheries Service, Panama City Laboratory  
Doug DeVries, National Marine Fisheries Service, Panama City Laboratory  
Gary Fitzhugh, National Marine Fisheries Service, Panama City Laboratory  
Neal Julien, Midwest Research Institute-Florida Division  
Robert McMichael, Florida Fish and Wildlife Research Institute  
Christine Verlinde, Florida Sea Grant  
Robert Turpin, Escambia County Marine Resources

##### **National**

Zhongxing Chen, Old Dominion University, Department of Chemistry and Biochemistry  
Rob Church, C and C Technologies, Inc  
Jim Cowan, Louisiana State University, Department of Oceanography  
John Gold, Texas A&M University, Department of Wildlife and Fisheries  
Terry Henwood, National Marine Fisheries Service, Pascagoula Laboratory  
Walter Ingram, National Marine Fisheries Service, Pascagoula Laboratory  
Dobbs Lee, Barry Vittor and Associates  
Rich McBride, National Marine Fisheries Service, Northeast Fisheries Science Center  
David Nieland, Louisiana State University, Coastal Fisheries Institute  
Al Rainosek, University of South Alabama, Department of Mathematics and Statistics  
Bob Shipp, University of South Alabama, Department of Marine Sciences  
Tom Shirley, University of Texas at Corpus Christi, Harte Research Institute for Gulf of Mexico Studies  
Will Schroeder, University of Alabama, Department of Biological Sciences (retired)  
Chuck Wilson, Louisiana State University and Louisiana Sea Grant  
Dave Winter, University of California at Davis, Department of Geology

##### **International**

Sam Bentley, Memorial University of Newfoundland, Department of Earth Sciences  
Bill Patterson, University of Saskatchewan, Department of Geology  
Heather Patterson, James Cook University, School of Marine Biology and Aquaculture

#### **PROFESSIONAL ORGANIZATIONS:**

American Fisheries Society, American Society of Limnology and Oceanography, Estuarine Research

Federation, Gulf Estuarine Research Society, and the American Association for the Advancement of Science

### **HONORS AND AWARDS:**

- 2007 National Oceanographic Partnership Program Award for Excellence in Partnering for collaborative research (see above for project collaborators) "The archeological and biological analysis of World War II shipwrecks in the Gulf of Mexico: A pilot study of the artificial reef effect in deep water"
- 2007 University of West Florida Distinguished Faculty Research and Creative Activities Award
- 2007 Inducted into the University of West Florida's Million Dollar Research Hall of Fame
- 2006 U.S. Department of Interior Cooperative Conservation Award for Minerals Management Service funded research (see above for project collaborators) "The archeological and biological analysis of World War II shipwrecks in the Gulf of Mexico: A pilot study of the artificial reef effect in deep water"
- 2006 Best Paper Award at the 26<sup>th</sup> Annual Meeting of the Florida Chapter of the American Fisheries Society for "Population connectivity in Gulf of Mexico red snapper inferred from otolith elemental signatures"
- 2005 Power Tie Award for the most dynamic oral presentation at the 25<sup>th</sup> Annual Meeting of the Florida Chapter of the American Fisheries Society for "Distinguishing striped mullet nursery estuaries in the northern Gulf of Mexico with otolith chemical signatures"
- 1999 Nelson Award for outstanding PhD. candidate in the Department of Marine Sciences, University of South Alabama

### **SEAGOING EXPERIENCE:**

Chief scientist, field technician, or R/V operator on more than 100 cruises of R/V A.E Verrill, R/V Bayrunner, R/V Beagle Too, R/V Caretta, R/V Cynoscion, R/V High Roller, R/V NMFS HST, R/V Lynnwood Holton, R/V Miss Genna, R/V Oregon II, R/V Peaquod, R/V Seahorse, R/V Suncoaster, R/V Sundowner, R/V Tommy Munro, F/V Deliverance, F/V Dorado, F/V Gulf of Mexico, F/V Island Star, F/V Lady Ann, and F/V Southerner. Experience on Atlantic Ocean, Chesapeake Bay, Mobile Bay, Pensacola Bay, St. Andrews Bay, and Gulf of Mexico.

### **PROFESSIONAL WORKSHOPS ATTENDED:**

- 1998 International Workshop on Analysis of Survival Data from Marked Animals, Research Unit for Wildlife Population Assessment, St. Andrews, Scotland, August 10-14.
- 1996 Short Course in Fishery Modeling, American Institute of Fishery Research Biologists, LaJolla, California, April 10-12.

### **SERVICE**

#### **UNIVERSITY SERVICE:**

##### **Department**

- 2006-date Faculty Sponsor, University of West Florida Fisheries Club
- 2004, 2006 Faculty Judge representing UWF Biology, Marine Sciences Graduate Student Symposium, Dauphin Island, Alabama
- 2004-date University of West Florida Open House: Biology Faculty Representative
- 2004-date 40+ letters of reference written for students

##### **College of Arts and Sciences**

- 2005-2006 University of West Florida Building 58 Space Allocation Committee
- 2004-date University of West Florida Diver Control Board

##### **University**

- 2007-date Chair, UWF Office of Sponsored Research Workgroup
- 2005-date Sponsored Research Advisory Committee
- 2005-date Sponsored Research Advisory Committee, Conflict of Interest Subcommittee

**PROFESSIONAL SERVICE:**

- 2008 President, Florida Chapter of the American Fisheries Society
- 2007 Invited Participant, Florida Fish and Wildlife Conservation Commission's Division of Freshwater Fisheries meeting: "Florida Freshwater Fisheries Roundtable: Creating a Vision for the Future". 19 October. Orlando, Florida.
- 2007 Invited Participant, Florida Fish and Wildlife Conservation Commission's Artificial Reef – Fish Management Science Colloquium: "The Utilization of Artificial Reefs for Effective Fish Management: Incorporating the Best Available Science". 24-25 July 2007. Tallahassee, Florida.
- 2007 President-Elect, Florida Chapter of the American Fisheries Society  
*-Responsible for establishing symposium theme for 2008 annual meeting, as well as soliciting/inviting speakers for it and soliciting contributed papers and posters.*
- 2005-date Appointed Member, Standing Statistical and Scientific Committee of the Gulf of Mexico Fishery Management Council  
*-Responsible for reviewing all biological, sociological, and economic analyses from various advisory panels, and then providing binding, final advice to the council on fishery management and habitat protection issues for all species living in federal waters of the Gulf of Mexico*
- 2004, 2005 Appointed Member, National Marine Fisheries Service's Cooperative Research Program Review Panel  
*-One of 8 scientists responsible for reviewing proposals submitted to the NMFS-CRP, evaluating peer-review comments, and recommending proposals for funding to the NMFS southeast regional science director*
- 2003-date Appointed Member, Finfish Stock Assessment Panel of the Gulf of Mexico Fishery Management Council  
*-One of 14 scientists responsible for reviewing scientific data on Gulf of Mexico fish stocks, running models to assess the status of the stocks, and providing scientific advice to the council on fishing quotas and other management actions.*
- 2002-2005 Associate Editor, Gulf of Mexico Science
- 2001-2003 Appointed Member, Reef Fish Stock Assessment Panel of the Gulf of Mexico Fishery Management Council  
*-One of eight scientists responsible for reviewing scientific data on reef fish stocks, running models to assess the status of the stocks, and providing scientific advice to the council on fishing quotas and other management actions. Occasionally responsible for presenting results to the Standing Statistical and Statistical Committee or to the Gulf of Mexico Fishery Management Council and testifying at public meetings.*
- 1997-2003 Appointed Member, Mackerel Stock Assessment Panel of the Gulf of Mexico and South Atlantic Fishery Management Councils (Chairman 2001- 2003)  
*-One of seven scientists responsible for reviewing scientific data on coastal pelagic fish stocks, running models to assess the status of the stocks, and providing scientific advice to the council on fishing quotas and other management actions. As Chairman, responsible for running meetings, and editing and coordinating reports for the stock assessment panels. Occasionally responsible for presenting results to the Standing and Statistical Committee or to the Gulf of Mexico Fishery Management Council and testifying at public meetings*

**SCIENTIFIC MEETINGS OR SYMPOSIA ORGANIZED:**

Symposium and contributed papers organizer, Florida Chapter of the American Fisheries Society Annual Meeting. 19-21 February 2008, Ocala, Florida.

Member, Organizing Committee, Northwest Florida Artificial Reef Workshop. 1-2 August 2006, Pensacola, Florida.

Chair, Organizing Committee, Red Snapper Ecology and Fisheries Symposium, *14th Annual Southern Division of the American Fisheries Society Meeting*. 8-12 February 2006, San Antonio, Texas.

Member, Steering/Organizing Committee, *8<sup>th</sup> International Conference on Artificial Reefs and Artificial Habitats*. 10-14 April 2005, Biloxi, Mississippi

**SERVICE AS A MANUSCRIPT REVIEWER:**

*American Fisheries Society Books, Aquatic Biology, Bulletin of Marine Science, Endangered Species Research, Fisheries Research, Fisheries Oceanography, Gulf of Mexico Science, ICES Journal of Marine Science, Journal of Fish Biology, Marine and Coastal Fisheries, Marine Ecology Progress Series, North American Journal of Fisheries Management, Scientia Marina, Transactions of the American Fisheries Society*

**SERVICE AS A PROPOSAL REVIEWER:**

Mississippi/Alabama Sea Grant, NOAA Coastal Oceans Program, NOAA Fisheries Cooperative Research Program, NOAA Marine Fisheries Initiative

**COMMUNITY SERVICE:**

Solicited as an advisor to Senator Bill Nelson's staff in regard to pending red snapper fishery regulations in the Gulf of Mexico, the history of the red snapper fishery, and why the life history of the species and the current and historical overfished status of the Gulf stock necessitated regulatory measures; spring 2008.

Worked with Washington High School (Pensacola, Florida) honors marine biology students and their faculty advisor, Kevin Turner, as they designed, built, and field tested a prototype remotely operated vehicle (ROV). Also provided hands-on training in the operation of UWF Fisheries' VideoRay Pro III micro-ROVs; summer 2006-spring 2007.

Interviewed with R.A. Snyder for ABC News Pensacola Affiliate WEAR's evening newscast about biological and toxicological research being conducted to estimate the potential impacts of the sinking of the aircraft carrier *ex-Oriskany* as an artificial reef off Pensacola; original air date: 19 May, 2006

Interviewed for WUWF's program "Inside UWF" about my and graduate student Nicole Morris' involvement in a Minerals Management Services study "Deep Gulf shipwrecks of World War II: Partners for science and history"; original air date: 10 September, 2006.

Provided expert opinion on fisheries issues for various print media outlets; 1999-date.