

## **GUILLERMO SANCHEZ**

Associate Research Scientist  
Gulf Benthic Taxonomy Assessment LLC  
Hattiesburg, MS  
[sanchezrguil@gmail.com](mailto:sanchezrguil@gmail.com)

## **EDUCATION**

The University of Southern Mississippi, Biological Science, Ph.D., 2009.

The University of Southern Mississippi, Biological Science, M.S., 1995.

National University of Colombia, Biological Science, B.S., 1992.

## **PROFESSIONAL EXPERIENCE**

### **(A) Positions**

- Associate Research Scientist. Gulf Benthic Taxonomy Assessment LLC., Hattiesburg, MS, 2017-present.
- Associate Research Scientist. Center for Fisheries Research and Development (CFRD), Gulf Coast Research Laboratory (GCRL), School of Ocean Science and Technology, The University of Southern Mississippi (USM), Ocean Springs, MS, 2014-2017.
- Postdoctoral Research Associate. Georgia Cooperative Fish and Wildlife Research Unit (GACFWRU), Warnell School of Forestry and Natural Resources (WSFNR), University of Georgia (UGA), Athens, GA, 2014-15.
- Postdoctoral Research Associate. CFRD, GCRL, USM, Ocean Springs, MS, 2009-2013.
- Graduate Research Assistant. CFRD, GCRL, USM, Ocean Springs, MS, 2000, 2003-2009.

- Graduate Research Fellow. Grand Bay National Estuarine Research Reserve (GBNERR), Pascagoula, MS, 2001-2002.
- Assistant Professor. Universidad Santo Tomas, Bogota D.C., Colombia, 1996.
- Graduate Research Assistant. GCRL, USM, Ocean Springs, MS, 1993-1995.

## **(B) Publications**

### Journal Articles

- **Sanchez-Rubio, G.**, H. Perry, D.R. Johnson. 201X. Variability of monthly reef fish (*Lutjanus spp.*) larvae abundance across the US Gulf of Mexico in response to decadal and interannual climatological regimes. (In preparation).
- **Sanchez-Rubio, G.**, H.M. Perry, D.R. Johnson. 201X. Oceanic-atmospheric modes of variability and their influence on meteorological and hydrological conditions on coastal regions along the Gulf of Mexico USA. (In preparation).
- **Sanchez-Rubio G.**, H.M. Perry, J. Lyczkowski-Shultz, D.R. Johnson. 201X. Variability of monthly zooplankton biomass across the US Gulf of Mexico in response to decadal and interannual climatological regimes. (In preparation).
- **Sanchez-Rubio, G.**, H. Perry, J. Franks, D.R. Johnson. 201X. Variability in monthly occurrence of pelagic *Sargassum* across the US Gulf of Mexico in response to decadal and interannual climatological regimes. (Submitted to Fishery Bulletin).
- Johnson, D.R., H. Perry, **G. Sanchez-Rubio**, M. Grace. 201X. Loop Current spin-off eddies, slope currents and dispersal of reef fish larvae from the Flower Gardens National Marine Sanctuary and the Florida Middle Grounds. (Submitted to Gulf and Caribbean Research).
- **Sanchez-Rubio, G.**, H.M. Perry. 2015. Climate-related hydrological regimes and their

influence in Gulf menhaden (*Brevoortia patronus*) recruitment in the northern Gulf of Mexico. Fish. Bull. 113:391–406.

- **Sanchez-Rubio, G.**, H.M. Perry, P.M. Biesiot, D.R. Johnson, R.N. Lipcius. 2011. Oceanic-atmospheric Modes of Variability and their Influence on Riverine Input to Coastal Louisiana and Mississippi. *Journal of Hydrology*, 396:72–81.
- **Sanchez-Rubio, G.**, H.M. Perry, P.M. Biesiot, D.R. Johnson, R.N. Lipcius. 2011. Climate-related hydrological regimes and their effects on abundance of juvenile blue crabs in northcentral Gulf of Mexico. *Fishery Bulletin*, 109:139–146.
- **Sanchez, G.**, H.M. Perry, C.B. Trigg, M. Vecchione, C. Roper, P.M. Biesiot, 1996. Morphometry of Juvenile and Subadult *Loligo pealei* and *Loligo plei* from the Northern Gulf of Mexico. *Fishery Bulletin*, 94:535–550.

#### Book Chapter

- Fulford, R.S., R.J. Grifft, N.J. Brown-Peterson, H. Perry, **G. Sanchez-Rubio**. 2014. Impacts of the Deepwater Horizon oil spill on blue crab, *Callinectes sapidus*, larval settlement in Mississippi, USA. *In* Impacts of oil spill disasters on marine habitats and fisheries in North America. Edited by J.B. Alford, M.S. Peterson and C.C. Green. CRC Press/Taylor and Francis Group, New York, NY. 320 pp.

#### Reports

- **Sanchez-Rubio, G.**, C.A. Jennings. 2015. Identifying and evaluating the distribution of fishes, crab, and shrimp in the Savannah River estuary: final administrative report US Army Corps of Engineers Project # W912HZ-14-2-0001.
- VanderKooy, S. (editor). 2013. Gulf Data, Assessment, and Review 01: Gulf of Mexico Blue Crab Stock Assessment Report. Gulf States Marine Fisheries Commission. Ocean

Springs, MS. GSMFC Number 215:313pp.

- **Sanchez-Rubio, G.,** H. Perry. 2013. Climate-related meteorological and hydrological regimes and their influence on Gulf menhaden (*Brevoortia patronus*) recruitment in the northern Gulf of Mexico: Final administrative report Saltonstall-Kennedy project # NA10NMF4270195.
- Lyczkowski-Shultz, J., F. Hernandez, M. Sutor, S.E. LeCroy, H. Perry, W. Graham, **G. Sanchez-Rubio,** M. Benfield. 2010. Identifying linkages between zooplankton dynamics, fishery resources and climate change in the Northern Gulf of Mexico. *In* Northern Gulf Cooperative Institute Progress Report NOAA Award #: NA06OAR4320264, Project 09-NGI-11: 241-249.
- **Sanchez-Rubio, G.,** 2004. Habitat Mapping of Oyster Resources and Submerged Vegetation for the GBNERR, MS. Final Report 2001-2002 NERR Graduate Research Fellowship Program. Submitted to the U.S. Department of Commerce, NOAA, Estuarine Reserve Division.

#### **(C) Awarded Grants**

- The effect of changing climate regimes on ephemeral nursery habitats: influence on selected reef fish populations in National Marine Sanctuaries and Habitat Areas of Particular Concern in the northern Gulf of Mexico. Johnson, D., **G. Sanchez-Rubio,** H. Perry. NOAA/FY14-16 MARFIN Program, University of Southern Mississippi, Ocean Springs, MS. NOAA Award # NA14NMF433022. 9-1-2014 – 8-31-2016. \$224,603.
- Climate-related hydrological regimes and their influence in Gulf menhaden recruitment in the northcentral Gulf of Mexico. **Sanchez-Rubio, G.,** H. Perry, V. Guillory. NOAA/FY10-12 Saltonstall-Kennedy (S-K) Program, University of Southern

Mississippi, Ocean Springs, MS. NOAA Award # 10SER012. 9-1-2010 – 8-31-2012.  
\$148,690.

- Identifying linkages between zooplankton dynamics, fishery resources, and climate change in the Northern Gulf of Mexico. Lyczkowski-Shultz, J., F. Hernandez, M. Sutor, S.E. LeCroy, H. Perry, W. Graham, **G. Sanchez**, M. Benfield. Department of Commerce, NOAA Award #: NA06OAR4320264. Northern Gulf Institute Project 09-NGI-11: 7-1-2009 – 6-30-2011. \$181,275.
- Mapping oyster reefs and submerged vegetation in the Grand Bay National Estuarine Research Reserve. **Sanchez, G.**, H.M. Perry, P.M. Biesiot. US Department of Commerce, NOAA, Estuarine Reserve Division. NERR Graduate Research Fellowship Program: 6-1-2001 to 5-31-2003. \$73,970.

#### **(D) Professional Services**

- Environmental/Climatic Influences on Blue Crab (*Callinectes sapidus*) Abundance in the North Central Gulf of Mexico. **Sanchez-Rubio, G.** Gulf States Marine Fisheries Commission Blue Crab GDAR Meeting & TTF Meeting in Biloxi, MS, 2012.
- External Reviewer for Journal of Hydrology, 2011-2012.
- Barataria-Terrebonne Rapid Assessment Project. Scientists from the Northern Gulf of Mexico, Barataria-Terrebonne National Estuary Program, Galliano, LA, 2008.
- Oceanic-atmospheric Modes of Variability and Their Effects on River Flow and Blue Crab (*Callinectes sapidus*) Abundance in the North Central Gulf of Mexico. **Sanchez-Rubio, G.**, H.M. Perry, P.M. Biesiot. Technical Coordinating Committee Crab Subcommittee and Gulf States Marine Fisheries Commission (GSMFC) 58<sup>th</sup> Annual Meeting, Point Clear, AL, 2007.

- Collection of Parasites in Nicaragua, Universidad Internacional de la Integracion de America Latina, Leon, Nicaragua, 2003.
- NOAA/Environmental Cooperative Science Center (ECSC) GBNERR Conceptual Modeling Workshop. NOAA/ECSC and Jackson State University, MSDMR, Biloxi, MS, 2002.

**(E) Field Work**

- Data Collection for Gulf of Mexico Nutrient Criteria Development in the State of Mississippi: A Pilot Study. Mississippi Department of Environmental Quality (MSDEQ)/CFRD, GCRL, USM, Ocean Springs, MS, 2011.
- National Coastal Condition Assessment. MSDEQ/CFRD, GCRL, USM, Ocean Springs, MS, 2010.
- Mississippi Coastal Assessment. MSDEQ/CFRD, GCRL, USM, Ocean Springs, MS, 2008-2010, 2013.
- Blue Crab Trap Fishery Study. Mississippi Department of Marine Resources (MSDMR)/CFRD, GCRL, USM, Ocean Springs, MS, 2005-2010.
- Fisheries Assessment and Monitoring Project. MSDMR/CFRD, GCRL, USM, Ocean Springs, MS, 2000-2010.
- Gulf Regional Derelict Trap Taskforce. MSDMR/CFRD, GCRL, USM, Ocean Springs, MS, 2007.
- Expanded Monitoring Study. MSDMR/CFRD, GCRL, USM, Ocean Springs, MS, 2006, 2009-2010.
- Back Bay Biloxi Storm Water Study. MSDEQ/CFRD, GCRL, USM, Ocean Springs, MS, 2005-2006.

- Winter Blue Crab Fishery Study. MSDMR/CFRD, GCRL, USM, Ocean Springs, MS, 2005-2006.
- Gulf Regional Derelict Trap Taskforce. MSDMR/CFRD, GCRL, USM, Ocean Springs, MS, 2004.
- Benthic Macro-invertebrates Study from Gulf Sturgeon Foraging Grounds in Northern Florida Shallow Coastal Areas. Florida Fish & Wildlife Service/GCRL, USM, Ocean Springs, MS, 2005.
- Mudflat Invertebrate Communities Study from Shorebird Feeding Areas in the GBNERR. MSDMR/GCRL, USM, Ocean Springs, MS, 2004.
- Nutrient Criteria for Mississippi's Coastal Waters. MSDEQ/CFRD, GCRL, USM, Ocean Springs, MS, 2004-2005.
- Parasites and crab collection in the Pacific Coast of Nicaragua. Leon, Nicaragua. 2003.
- Blue Crab Aquaculture Program. CFRD, GCRL, USM, Ocean Springs, MS, 2002.
- Habitat Utilization by Postlarval Brown Shrimp in Western Mississippi Sound. National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS)/MSDMR/CFRD, GCRL, USM, Ocean Springs, MS, 2001.
- Blue Crab Recruitment Study. NOAA, NMFS/CFRD, GCRL, USM, Ocean Springs, MS, 2000-2001.
- Habitat Mapping of Oyster Resources and Submerged Vegetation for the GBNERR, Pascagoula, MS, 2001-2002.

**(F) Presentations at Professional Meetings**

- Climate regimes and occurrence of *Sargassum* in the US Gulf of Mexico. **Sanchez-Rubio, G.**, H. Perry, J.S. Franks, D.R. Johnson. 69th Gulf and Caribbean Fisheries

Institute Meeting, Grand Cayman, 2016.

- Estuarine community response to a shift of weather-related hydrographic regimes imposed by climate variability in coastal waters of Mississippi. Anderson E.J., **G. Sanchez-Rubio**. 69th Gulf and Caribbean Fisheries Institute Meeting, Grand Cayman, 2016.
- Exploratory study: Climate variability and its influence on the community of estuarine species in the coastal waters of Mississippi. Anderson, E.J., **G. Sanchez-Rubio**. Bays and Bayous symposium. Mobile, Alabama, 2016.
- Reef Fish in the Northern Gulf of Mexico and Decadal Circulation Patterns. Johnson, D., P. Moreno, H. Perry, M. Grace, **G. Sanchez-Rubio**. 68<sup>th</sup> Gulf and Caribbean Fisheries Institute Meeting, Panama City, Panama, 2015.
- Climate Change and the Equatorial Atlantic: Impacts on Fishery Important Habitat of the Inter-American Seas. Johnson, D., H. Perry, **G. Sanchez-Rubio**. 67<sup>th</sup> Annual Gulf and Caribbean Fisheries Institute Meeting, Barbados, 2014.
- Some Effects of Global Climate Variations on Red Snapper and Other Important Fisheries in The Gulf of Mexico. Johnson, D.R., H.M. Perry, **G. Sanchez-Rubio**. Bays and Bayous symposium. Mobile, Alabama, 2014.
- Atlantic bluefin tuna (*Thunnus thynnus*) spawning and larval habitats in the northern Gulf of Mexico: overlap between the habitats and oiled surface waters during May 2010. Franks, J.S., D.R. Johnson, D.S. Ko, B.H. Comyns, J. Tilley, D.M. Gibson, E.R. Hoffmayer, J.R. Hendon, E.M. Blake, **G. Sanchez-Rubio**. Oil Spill Conference and Ecosystem Science, New Orleans, Louisiana, 2013.
- The sargassum invasion of the eastern Caribbean and dynamics of the equatorial North



Atlantic. Johnson, D., D.S. Ko, J.S. Franks, P. Moreno, **G. Sanchez-Rubio**. 65<sup>th</sup> Annual Gulf and Caribbean Fisheries Institute Meeting, Santa Marta, Colombia, 2012.

- The Influence of Climate-Related Hydrodynamics on Abundance and Distribution of Bluefin Tuna (*Thunnus Thynnus*) Larvae in the Northern Gulf of Mexico. **Sanchez-Rubio G.**, J. Franks. 63<sup>rd</sup> Tuna Conference, Lake Arrowhead, California, 2012.
- Unprecedented Influx of Pelagic Sargassum along Caribbean Island Coastlines During Summer 2011. Franks, J., D. Johnson, D.S. Ko, **G. Sanchez-Rubio**, R. Hendon, M. Lay. 6<sup>th</sup> Meeting of the CRFM's Ministerial Council, Nassau, Bahamas, 2012.
- Unprecedented Influx of Pelagic Sargassum along Caribbean Island Coastlines during Summer 2011. Franks, J., D. Johnson, D.S. Ko, **G. Sanchez-Rubio**, R. Hendon, M. Lay. 64<sup>rd</sup> Annual Gulf and Caribbean Fisheries Institute Meeting. Puerto Morelos, Mexico, 2011.
- Influence of Atlantic and Pacific Modes of Variability on Winter Climatology and Spring Zooplankton Displacement Values in the Northern Gulf of Mexico. **Sanchez-Rubio, G.**, H.M. Perry, J. Lyczkowski-Shultz. Northern Gulf Institute Annual Conference. Renaissance Riverview Plaza Hotel, Mobile, Alabama, 2011.
- Effect of Turtle Excluder Devices (Teds) on Commercial Catch of Blue Crabs *Callinectes Sapidus* in Mississippi. Graham, D., H. Perry, D. Gibson, J. Anderson, **G. Sanchez**, T. Floyd, B. Richardson. 37<sup>th</sup> Annual Meeting of the Mississippi Chapter of the American Fisheries Society. The Franklin Center, Mississippi State University, Starkville, MS. 2011.

- Red Snapper (*Lutjanus Campechanus*) and the DWH oil Spill. Johnson, D., H. M. Perry, **G. Sanchez**. Alabama Mississippi Bays and Bayous Symposium. Arthur R. Outlaw Convention Center, Mobile, AL. 2010.
- Distribution of Red Snapper (*Lutjanus campechanus*) and their Spawn in The Northern Gulf of Mexico. Johnson, D., H. Perry, M. Grace, **G. Sanchez**. 63<sup>rd</sup> Annual Gulf and Caribbean Fisheries Institute Meeting. San Juan, Puerto Rico, 2010.
- Comparison of Displacement Volumes of Zooplankton under Different Climate-related Hydrological Regimes in the Northern Gulf of Mexico. **Sanchez-Rubio, G.**, H. M. Perry, J. Lyczkowski-Shultz. Northern Gulf Institute Annual Conference. Renaissance Riverview Plaza Hotel, Mobile, Alabama, 2010.
- Oceanic-Atmospheric Modes of Variability and Their Effects on River Flow in the North Central Gulf of Mexico. **Sanchez-Rubio, G.**, H.M. Perry, P.M. Biesiot. Mississippi Water Resources Annual Conference, Mississippi State University. Harrah's Casino, Tunica, MS, 2009.
- Oceanic-Atmospheric Modes of Variability and Their Effects on River Flow and Blue Crab (*Callinectes sapidus*) Abundance in the Northcentral Gulf of Mexico. **Sanchez, G.**, H.M. Perry, P.M. Biesiot. 3<sup>rd</sup> Graduate Climate Conference, Program on Climate Change, University of Washington. Pack Forest Conference Center, Eatonville, WA, 2009.
- Oceanic-Atmospheric Modes of Variability and Their Effects on River Flow and Blue Crab (*Callinectes sapidus*) Abundance in the Northcentral Gulf of Mexico. **Sanchez-Rubio, G.**, H.M. Perry, P.M. Biesiot. 35<sup>th</sup> Annual Meeting of the Mississippi Chapter, American Fisheries Society, Biloxi, MS, 2009.

- Population Trends of Blue Crabs in Coastal waters of the Northern Gulf of Mexico. Perry, H.M., R. Riedel, G. Sanchez, L. Hartman, S. Heath, V. Guillory, H. Blanchet. 101<sup>st</sup> Annual Meeting, National Shellfisheries Association, Savannah, Georgia, 2009.
- Population Trends of Blue Crabs in Mississippi and Louisiana from Fishery-Independent Survey Data. Perry, H.M., R. Riedel, **G. Sanchez**, H. Blanchet, V. Guillory. 35<sup>th</sup> Annual Meeting of the Mississippi Chapter, American Fisheries Society, Biloxi, MS, 2009.
- Assessing Stocks of the Mississippi Blue Crab Fishery. Graham, D.J., J. Anderson, D. Gibson, H. Perry, **G. Sanchez**, T. Floyd, B. Richardson. 35<sup>th</sup> Annual Meeting of the Mississippi Chapter, American Fisheries Society, Biloxi, MS, 2009.
- Population Trends of Selected Demersal Species in Coastal Waters of Mississippi and Alabama. Perry, H., R. Riedel, **G. Sanchez**, L. Hartman, S. Heath. Mississippi-Alabama Bays & Bayous Symposium, Biloxi, MS, 2008.
- Oceanic-atmospheric Modes of Variability and Their Effects on River Flow and Blue Crab (*Callinectes sapidus*) Abundance in the North Central Gulf of Mexico. **Sanchez-Rubio, G.**, H.M. Perry, P.M. Biesiot. Mississippi-Alabama Bays & Bayous Symposium, Biloxi, MS, 2008.
- Effect of Turtle Excluder Devices (TEDs) on Commercial Catch of Blue Crabs *Callinectes Sapidus* in Mississippi. Perry, H., D. Dennis, D. Gibson, J. Anderson, **G. Sanchez**, T. Floyd, B. Richardson. The Joint Annual Meeting of the Mississippi and Arkansas Chapters of the American Fisheries Society. Sam's Town Casino, Tunica, MS, 2008.

- Global and Gulf of Mexico Climatological Teleconnections May Influence Fisheries.  
**Sanchez, G.**, H.M. Perry, P.M. Biesiot. 68<sup>th</sup> Annual Meeting Mississippi Academy of Sciences, Biloxi, MS., 2004.
- Baseline Data Maps for the Grand Bay National Estuarine Research Reserve, MS.  
**Sanchez, G.**, H.M. Perry, P.M. Biesiot. 68<sup>th</sup> Annual Meeting Mississippi Academy of Sciences, Biloxi, MS, 2004.
- Habitat Mapping of Oyster Resources and Submerged Vegetation for the GBNERR, MS.  
**Sanchez, G.** Graduate Student Summer Seminar, GCRL, Ocean Springs, MS., 2002.
- Habitat Mapping of Oyster Resources and Submerged Vegetation for the GBNERR, Pascagoula, MS. **Sanchez, G.** 19<sup>th</sup> Annual Graduate Student Symposium, Department of Biological Sciences, USM, Hattiesburg, MS, 2002.
- Habitat Mapping of Oyster Resources and Submerged Vegetation for the GBNERR, MS.  
**Sanchez, G.** Graduate Student Symposium, College of Marine Sciences, GCRL, USM, Ocean Springs, MS, 2002.
- Habitat Mapping of Oyster Resources and Submerged Vegetation for the GBNERR, MS.  
**Sanchez, G.** GBNERR Board Meeting, Pascagoula, MS. 2001.

**(G) Attended Events**

- 5<sup>th</sup> International Airborne Remote Sensing Conference, Veridian Systems Division, Miami, FL, 2002.
- 7<sup>th</sup> International Conference on Remote Sensing for Marine and Coastal Environments, Veridian Systems Division, Miami, FL, 2002.
- Estuarine Research Federation meeting, St. Petersburg, FL, 2001.
- 53<sup>rd</sup> Annual Gulf and Caribbean Fisheries Institute, Biloxi, MS., 2000.

## **(H) Apprenticeship Training**

- Gulf of Mexico Nutrient Criteria Development in the State of Mississippi. MSDEQ. GCRL, USM, Ocean Springs, MS, 2011.
- National Coastal Condition Assessment. United States Environmental Protection Agency. GCRL, USM, Ocean Springs, MS., 2010.
- 24hr Hazardous Waste Operations and Emergency Response Health and Safety. McCutcheon Enterprises, Inc. GCRL, USM, Ocean Springs, MS., 2010.
- Mississippi Coastal Assessment. MSDEQ. GCRL, USM, Ocean Springs, MS., 2008.
- Estuarine Nutrient Criteria. MSDEQ/CFRD, GCRL, USM, Ocean Springs, MS, 2004.
- Exploring Environment for Visualizing Images. Research Systems, Gulf Coast Geospatial Center, GCRL, USM, Ocean Springs, MS, 2003.
- Introduction to Arcview Geographic Information System, Environmental Systems Research Institute. MSDMR, Biloxi, MS, 2001.
- Taxonomy of *Loligo pealei* and *Loligo plei*. Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institute, Washington D.C., 1994.

## **(I) Student Research Assistance**

- Fayton, T.J. (in progress). Parasite Community in Florida Springs. Dissertation. Department of Coastal Science, GCRL, USM, Ocean Springs, MS., 2011-present.
- Anderson, J. (2009). Early Life History of the Three Kingfish (*Menticirrhus*) Species Found in Coastal Waters of the Northern Gulf of Mexico. M.S. thesis. Department of Coastal Science, GCRL, USM, Ocean Springs, MS., 2005-2006.

- Dreszer, C., (2005). Monitoring of Hydrology, Nutrients, and Fecal Coliforms During Storm Events in the Back Bay of Biloxi, MS, USA. B.S. Thesis, Department of Chemistry, University Duisburg - Essen, Germany, 2005.
- Shervette, V.R., (2000). Factors Influencing Refuge Occupation by Stone Crab *Menippe adina* Juveniles in Mississippi Sound. M.S. thesis, Department of Biological Sciences, USM, Hattiesburg, MS., 2000.

**(J) Synergistic Activities**

- Updated to a more reliable and modern software the Fisheries Assessment and Monitoring database (1973-2009), Center for Fisheries Research and Development, Gulf Coast Research Laboratory, The University of Southern Mississippi, 2009.
- Develop an interactive map to consolidate base line data sets for the Grand Bay National Estuarine Research Reserve, MS. NERR Graduate Research Fellowship Program 2004.