

Paulinus Chigbu, Ph.D
UNIVERSITY OF MARYLAND EASTERN SHORE
NOAA LIVING MARINE RESOURCES COOPERATIVE SCIENCE CENTER
CARVER HALL
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ACADEMIC POSITION

- **Professor** of Marine Environmental Science (Fisheries) July 2007 – Present.
- **Director**, NOAA Living Marine Resources Cooperative Science Center, University of Maryland Eastern Shore. January 2006 – Present.
- **Director**, NSF Center for Research Excellence in Science and Technology (CREST): Center for the Study of Coastal Ecosystem Processes and Dynamics in the Mid-Atlantic Region. 2010 – Present.
- **Director**, Coastal Ecology Teaching and Research Center (CETRC), University of Maryland Eastern Shore. 2007 – 2008.
- **Associate Professor** of Environmental Science & Director, NOAA Living Marine Resources Cooperative Science Center, University of Maryland Eastern Shore. January 2006 – June 2007.
- **Associate Professor** of Biology & Director, Marine Science Program, Jackson State University, Jackson, MS. 2003 – December 2005; tenured in 2004
- **Assistant Professor** of Biology & Director, Marine Science Program, Jackson State University, Jackson, MS. 1998 – 2003.
- **Visiting Faculty**, Department of Biology, Elizabeth City State University, North Carolina (1996 – 97).

EDUCATION

- **Ph.D., Fisheries.** University of Washington, Seattle 1993
- **M.Sc. Zoology** (Hydrobiology). University of Benin, Nigeria 1987
- **B.Sc. Zoology** (First Class Honors). University of Benin, Nigeria 1984

HONORS/SCHOLARSHIPS/FELLOWSHIPS/AWARDS (Selected)

- University System of Maryland Board of Regent's Faculty Excellence in Mentoring Award (2016).
- American Association for the Advancement of Science (AAAS)/National Research Foundation (NRF), South Africa, Travel Award to Attend the South African Ph.D. Project Conference, Durban, South Africa, August 13-18, 2012.
- Distinguished Scholar Award, University of Maryland Eastern Shore, 2011.
- Research Innovation Award, Jackson State University, 2005.
- Mason Keeler Endowment for Excellence Fellowship, School of Fisheries, University of Washington (UW), Seattle, 1991 - 1993.
- Chapman Memorial Scholarship, School of Fisheries, UW, Seattle, 1990.
- Electric Power Research Institute (EPRI) Sport Fishing Institute Research Fellowship, 1989 – 1992.
- Cobb Scholarship, School of Fisheries, UW, Seattle, 1989.

- American Society of Limnology and Oceanography (ASLO) Travel Award, 1989.
- Fulbright Scholarship, 1987 - 1992.

MEMBERSHIP OF NATIONAL BOARDS/EXTERNAL REVIEW PANELS

- Member, National Sea Grant Advisory Board (2013 to Present)
- Technical Advisor to the Advisory Committee to the United States National Section, International Committee for the Conservation of Atlantic Tunas (ICCAT), February 2011 - 2014.
- Member, External Review Panel, Cooperative Institute for Marine Ecosystems and Climate (CIMEC), February 6-7, 2014.
- Member, Virginia Sea Grant College Status Site Review Committee, National Sea Grant Advisory Board, Williamsburg, VA, September 4-6, 2013.
- Co-Chair, Mississippi-Alabama Sea Grant College Review Panel, National Sea Grant Advisory Board, Biloxi, MS, April 1-2, 2015
- Co-Chair, South Carolina Sea Grant Consortium Review, Charleston, SC, August 1-2, 2015

OTHER ADMINISTRATIVE EXPERIENCES AND POSITIONS (Selected)

- Program Director, UMES Professional Science Master's degree Program in Quantitative Fisheries and Resource Economics, 2010 – present.
- Director, Research Experiences for Undergraduates (REU) in Marine and Estuarine Sciences, 2009 – present.
- Member, organizing committee of the Florida A&M University/NOAA EPP Educational and Research Forum held at FAMU, October 31 to November 2, 2006.
- Chair, Marine Sciences Session II at the Florida A&M University/NOAA EPP Educational and Research Forum held at FAMU, October 31 to November 2, 2006.
- Chair, Marine and Atmospheric Sciences Division, Mississippi Academy of Sciences, 2005-2006.
- Vice Chair, Marine and Atmospheric Sciences Division, Mississippi Academy of Sciences, 2004-2005.
- Member, Steering Committee, Expanding Opportunities in Oceanic and Atmospheric Sciences (2003).
- Jackson State University (JSU) Site Coordinator, Louis Stokes Mississippi Alliance for Minority Participation (LSMAMP), 1999 - 2002.
- JSU Program Coordinator, Office of Naval Research – Interns in Biomolecular Sciences, 2002 - 2005.
- JSU Program Coordinator, University of Southern Mississippi - Jackson State University Research Experiences for Undergraduate (REU) Minorities in Marine and Coastal Sciences, 2000 - 2003.
- Project Director, NOAA-NESDIS Environmental Risks Assessment Integrative Systems Approach (ERAISA) Project, Jackson State University, 2002 – 2005.
- Project Director, NOAA - JSU Fisheries Stock Assessment Program (2001 – 2004)
- Secretary/Treasurer, American Fisheries Society, Mississippi Chapter (2000 - 2001).

- Member of Governing Council, United States-South Africa Education Partnership, US Department of Commerce, 1998-2001.

PUBLICATIONS (Selected),*Students

- Mayor, E.* , **Chigbu, P.**, Pierson, J., and Kennedy, V.S. (2016). Composition, abundance and life history of mysids (Crustacea: Mysidacea) in the coastal lagoons of Maryland, USA. *Estuaries and Coasts (Accepted)*.
- Morales-Núñez A.G., and **Chigbu, P.** (2016). Life history of *Dulichchiella appendiculata* (Say, 1818) (Crustacea: Peracarida: Amphipoda) in the Maryland Coastal Bays, USA. *Aquatic Biology*, In Press.
- Morales-Núñez A.G., and **Chigbu, P.** (2016). A new species of *Apolochus* Hoover & Bousfield, 2001 (Crustacea: Amphipoda: Amphilochidae) from the Maryland Coastal Bays, USA. *ZooKeys* 571: 81-104.
- Duan, S., Chen, N., Kaushal, S., **Chigbu, P.**, Ishaque, A., May, E. and Oseji, O.F.* (2015). Dynamics of dissolved organic carbon and nitrogen in the Maryland Coastal Bays. *Estuarine, Coastal and Shelf Science* 16: 451-462.
- Rodgers, C*., Parveen, S., **Chigbu, P.**, Jacobs, J., Harter-Dennis, J. & Rhodes, M. (2014). Prevalence of *Vibrio parahaemolyticus*, and *V. vulnificus* in Blue Crabs (*Callinectes sapidus*), seawater, and sediments of the Maryland Coastal Bays. *J. Appl. Microbiol.* 117(4): 1198-1209.
- Ciannelli, L., Hunsicker, M., Beaudreau, A., Bailey, K., Crowder, L., Finley, C., Webb, C., Reynolds, J., Sagmiller, K., Anderies, J.M., Hawthorne, D., Parrish, J., Heppell, S., Conway, F., & **Chigbu, P.** (2014). Transdisciplinary graduate training in marine resource science and management. *ICES Journal of Marine Science*, doi: 10.1093/icesjms/fsu067, April 2014.
- Chigbu, P.** & Parveen, S. (2014). *Bacteriological Analysis of Water*. In L.M.L. Nollet and L.S.P. De Gelder (editors). Handbook of Water Analysis. Third Edition. CRC Press, Taylor & Francis Group, Boca Raton, New York.
- Chigbu, P.**, Love, J.W. & Newhard, J.J.* (2009). Effects of *El Niño* Southern Oscillation (ENSO) on marine fish and shellfish populations and their habitats in North America. In John A. Long and David S. Wells (Editors): *Ocean Circulation & El Nino: New Research*. Nova Science Publishers, Inc. ISBN: 978-1-60692-084-8
- Love, J.W., **Chigbu, P.** & May, E.B. (2009). Environmental variability affects distributions of coastal fish species (Maryland, USA). *Northeast Naturalist* 16(2): 255-268.
- Chigbu, P.**, Jearld, A. & Fogarty, M. J. (2007). National Oceanic and Atmospheric Administration and Jackson State University Program in Fish Stock Assessment. *Journal of Geoscience Education*, 55: 541-549.
- Chigbu, P.** & Sobolev, D. (2007). *Bacteriological Analysis of Water*. In L.M.L. Nollet (editor). Handbook of Water Analysis. Second Edition. CRC Press, Boca Raton, New York.
- Chigbu, P.**, Strange, T., Gordon, S., Jester, K., Baham, J., Young, J., Hughes, R., Remata, R., Martinolich, K., Hilbert, K., Mott, D.K., Watts, M. & McIntosh, M. (2006). A decision support tool for shellfish management in Mississippi Sound. *Journal of Shellfish Research* 25(3): 1091-1099.
- Chigbu, P.** & Suchar, V.A.* (2006). The isolation and culture of *Colurella dicentra* from a Mississippi Gulf Coast Estuary. *Aquaculture Research* 37: 1400-1405.

- Suchar, V.A.* & **Chigbu, P.** (2006). The effects of algae species and densities on the population growth of the marine rotifer, *Colurella dicentra*. *Journal of Experimental Marine Biology and Ecology* 337(1): 96-102.
- Kishinhi, S.*, Tchounwou, P.B., Farah, I.O. & **Chigbu, P.** (2006). Recreational Water Quality Control in Mississippi, USA: Bacteriological assessment in the Pearl River and Ross Barnett Reservoir. *Reviews on Environmental Health* 21(4): 293-305.
- Chigbu, P.**, Gordon, S., & Strange, T. (2005). Fecal coliform bacteria disappearance rates in a north-central Gulf of Mexico Estuary. *Estuarine, Coastal and Shelf Science* 65: 309-318.
- Chigbu, P.**, Gordon, S. & Tchounwou, P.B. (2005). Seasonal patterns of fecal coliform bacteria pollution and its influence on closures of shellfish harvesting areas in Mississippi Sound. *International Journal of Environmental Research and Public Health* 2(2): 362-373.
- Chigbu, P.**, Gordon, S., & Strange, T. (2004). Influence of inter-annual variations in climatic factors on fecal coliform levels in Mississippi Sound. *Water Research* 38(20): 4341-4352.
- Chigbu, P. (2004)**. Assessment of the Potential Impact of the Mysid Shrimp, *Neomysis mercedis*, on *Daphnia*. *Journal of Plankton Research* 26(3): 295-306.
- Chigbu, P.**, Ogle, J.T., Lotz, J.M. & Coleman, E.L.* 2002. Some aspects of the culture of red snapper (*Lutjanus campechanus*). *Proceedings of the 53rd Annual Gulf and Caribbean Fisheries Institute*, 228-233.
- Reddy, R.S., Vatti, M.* & **Chigbu, P.** (2002). Simulations of Southeast Louisiana and Southern Mississippi Flood of May 8-10th, 1995. Proceedings of the 82nd American Meteorological Society Conference, February 2002, Long Beach, CA, USA.
- Chigbu, P. 2001**. Occurrence and distribution of *Salmincola californiensis* (Copepoda: Lernaepodidae) on Juvenile Sockeye Salmon (*Oncorhynchus nerka*) in Lake Washington. *Journal of Freshwater Ecology* 16(4): 615-620.
- Chigbu, P. 2000**. Population biology of longfin smelt, and aspects of the ecology of other major planktivorous fishes in Lake Washington. *Journal of Freshwater Ecology* 15(4): 543-557.
- Chigbu, P.**, T.H. Sibley, and D.A. Beauchamp. 1998. Abundance and distribution of *Neomysis mercedis* and a major predator, longfin smelt (*Spirinchus thaleichthys*) in Lake Washington. *Hydrobiologia* 386: 167-182.
- Chigbu, P.** and T.H. Sibley 1998. Feeding ecology of longfin smelt (*Spirinchus thaleichthys*) in Lake Washington. *Fisheries Research* 38: 109-119.
- Chigbu, P.** and T.H. Sibley 1998. Predation by longfin smelt (*Spirinchus thaleichthys*) on the mysid *Neomysis mercedis* in Lake Washington. *Freshwater Biology* 40: 295-304.
- Chigbu, P.** and T.H. Sibley. 1996. Biometrical relationships, energy content and biochemical composition of *Neomysis mercedis* in Lake Washington. *Hydrobiologia* 337: 145-150.
- Chigbu, P.** and T.H. Sibley 1994. Relationship between abundance, growth, fecundity and egg size in a land-locked population of longfin smelt (*Spirinchus thaleichthys*). *Journal of Fish Biology* 45: 1-15.
- Chigbu, P.** and T.H. Sibley 1994. Predation by *Neomysis mercedis*: Effects of temperature, *Daphnia magna* size and prey density on ingestion rate and size selectivity. *Freshwater Biology* 32: 39-48.

- Chigbu**, P. and T.H. Sibley 1994. Diet and growth of longfin smelt and juvenile sockeye salmon in Lake Washington. *Internationale Vereinigung fur Theoretische und Angewandte Limnologie* 25: 2086-2091.
- Sibley, T.H. and P. **Chigbu**. 1994. Feeding behavior of longfin smelt *Spirinchus thaleichthys* may affect water quality and salmon production in Lake Washington. *Lake and Reservoir Management* 9: 145-148.
- Egborge, A.B.M., C.S. Onwudinjo and P.C. **Chigbu**. 1994. Cladocera of coastal rivers of Western Nigeria. *Hydrobiologia* 272: 39-46.
- Egborge, A.B.M. and P. **Chigbu** 1988. The rotifers of Ikpoba River, Bendel State. *The Nigerian Field*. 53: 117 - 132.

MEMBERSHIP OF EDITORIAL BOARDS

1. Editorial Board Member, The Open Fish Science Journal; 2008 – present.
2. Review Editors Member, Frontiers in Environmental Health; 2013 - present

JOURNAL ARTICLE REVIEWS (Partial List)

I have reviewed articles for publication in the:

- *Journal of Experimental Marine Biology and Ecology*
- *North American Journal of Aquaculture*
- *Journal of Fish Biology*
- *Environmental Toxicology*
- *Journal of the Mississippi Academy of Sciences*
- *Transactions of the American Fisheries Society*
- *International Journal of Environmental Research and Public Health*
- *Journal of Applied Phycology*
- *Water Research*
- *Water, Air and Soil Pollution*
- *Estuarine Coastal and Shelf Science*
- *Aquatic Biology*
- *Experimental Biology and Medicine*
- *Journal of Environmental Management*
- *Pakistan Journal of Scientific and Industrial Research*

PROPOSAL REVIEWS

For the:

- *National Defense Science and Engineering Graduate Fellowship Program as a panelist*
- Panel that Reviewed the NSF Graduate Research Fellowship Program, Division of Graduate Education
- *National Science Foundation (NSF) CREST Reverse Site Review Panel as a panelist*
- *National Science Foundation (NSF), Ocean Sciences Division as an external reviewer*
- *NSF Ecology Program, as an external reviewer*

- *NSF Environmental Biology (Ecology Division). CAREER Proposals (as an external reviewer)*
- *NSF Math and Science Partnership Program, as a panelist*
- *NSF Graduate Research Fellowship Program as a panelist*
- *US Department of Agriculture (USDA), Animal Growth and Nutrition, as an external reviewer*
- *Mississippi-Alabama Sea Grant Consortium (MASGC) Grant, Technical Review Committee*
- *New York Sea Grant External Reviewer of Proposals*
- *Mississippi-Alabama Sea Grant Consortium (MASGC), Graduate Fellowship Program, as a panelist*
- *The Delta Science Program (formerly CALFED Science Program), California*
- *Commercial Fisheries Research Foundation through the Southern New England Collaborative Research Initiative Proposal Review Panel, Administered by University of Rhode Island Sea Grant*
- *Reviewer, NOAA's Broad Agency Announcement Proposal*

MEMBERSHIP OF PROFESSIONAL AND SCIENTIFIC SOCIETIES

- American Fisheries Society
- Association of the Science of Limnology and Oceanography

GRANTS (AS PRINCIPAL OR CO-PRINCIPAL INVESTIGATOR)

Grants Funded at the University of Maryland Eastern Shore.

(i) Title: NOAA Living Marine Resources Cooperative Science Center

Role: PI: **Paulinus Chigbu** (UMES)

Co-PI: Bradley Stevens (UMES);

Co-PI: Dionne Hoskins (SSU);

Co-PI: Dionne Hoskins (HU);

Co-PI: Stacy Smith (DSU)

Co-PI: Rosemary Jagus (UMCES-IMET)

Co-PI: David Die (RSMAS)

Funding Agency: NOAA EPP;

Total Amount: \$15 million

Duration: September 1, 2011 to August 31, 2016.

(ii) Title: CREST Center for the Integrated Study of Coastal Ecosystem Processes and Dynamics

Role: Principal Investigator (Co-PIs: Eric May, Joseph Pitula, Andrea Johnson, Madhumi Mitra)

Funding Agency: NSF; **Amount:** ~\$5million

Duration: October 1, 2010 to September 30, 2015 (Extended to September 2016).

(iii) Title: Professional Science Master's Degree Program in Quantitative Fisheries & Resource Economics

Role: Principal Investigator (Co-PIs: Joseph Okoh, Jennifer Keane-Dawes, Kristy Wallmo, David Die)

Funding Agency: NSF; **Amount:** ~\$700,000

Duration: June 1, 2010 to May 30, 2013.

(iv) **Title:** *Research Experiences for Undergraduates (REU) Site in Marine and Estuarine Science: University of Maryland Eastern Shore*

Role: Principal Investigator (Co-PIs: J. Love, 2009-2012; E.B. May, 2012-2015; M. Sexton, 2015-2018)

Funding Agency: NSF; **Amount:** \$231,521; \$262,000; \$282,000

Duration: June 1, 2009 to May 30, 2012; 2012 – 2015; 2015 - 2018

(v) **Title:** *NOAA Living Marine Resources Cooperative Science Center*

Role: PI: **Paulinus Chigbu** (UMES)

Co-PI: Eric May (UMES);

Co-PI: Dionne Hoskins (SSU);

Co-PI: George Burbank (HU);

Co-PI: Dewayne Fox (DSU)

Co-PI: Rosemary Jagus (COMB)

Co-PI: David Die (RSMAS)

Funding Agency: NOAA EPP;

Total Amount: \$12.5 million

Duration: September 1, 2006 to August 31, 2011.

(vi) **Title:** *Establishment of a Network of Cooperative Science Centers and High Schools for Training High School Students in Geosciences*

Role: Principal Investigator (Co-Principal Investigators: Ali B. Ishaque and Reza Khanbilvardi)

Agency: NSF

Amount: \$500,000/3yr

Duration: 2012 to 2015

(vii) **Title:** *A Rapid, User Friendly Method for Detection of Total Vibrionaceae as an Indicator of Pathogenic *Vibrio* species in Oysters and Seawater.*

Role: Co-Principal Investigator (PI: Salina Parveen)

Agency: USDA-NIFA

Amount: \$479,672/3yr

Duration: 9/1/14 to 8/31/17

(viii) **Title:** *GP-IMPACT: Strengthening Pathways into Geosciences through Summer Bridge and Undergraduate Training Programs*

Role: Principal Investigator (Co-PIs: Ali B. Ishaque, Reza Khanbilvardi, Vernon Morris, Michael Abazinge, Erik Zettler)

Agency: NSF

Amount: \$485,000

Duration: 9/1/15 – 8/31/18

Grants Funded at Jackson State University

(i) **UBM: Interdisciplinary training of undergraduates in biological and mathematical sciences with emphasis on fisheries stock assessment.**

- I served as the **Principal Investigator** of the grant (until 2006 when I relocated to UMES)
- **Total Amount of Award** = \$300,000 (2005-2008).
- **Funding Agency** = National Science Foundation.

(ii) NOAA EPP High School Pipeline Project to Increase the Number of Minorities Underrepresented in Geosciences: Careers in Aquatic, Fisheries and Atmospheric Sciences.

- I served as the **Principal Investigator** of the grant (until 2006 when I relocated to UMES)
- **Total Amount of Award** = \$499,000 (2005-2010).
- **Funding Agency** = NOAA

(iii) Environmental Cooperative Science Center for Regional Studies in Sustainable Management of Coastal and Marine Habitats for Policy Decision Making

- I served as the **Co-Principal Investigator** of the grant.
- **Total Amount of Award** = \$1,220,000 (2001-2006)
- **Funding Agency** = NOAA through Florida A&M University

(iv) LSMAMP Phase III Grant.

- I served as the **Co-Principal Investigator** of the grant from 2001-2002 (The PI was Dr. Richard Sullivan, Jackson State University).
- **Total Amount of Award** = \$1.5 million (2001-2006).
- **Funding Agency** = NSF

(v) Environmental Risk Assessment Integrative Systems Approach (ERAISA) with GIS/RS

- I served as the **Co-Principal Investigator and Director** of the grant (The PI was Dr. Abdul K. Mohamed)
- **Total Amount of Award** = \$2,375,000 (2001-2005)
- **Funding Agency** = NOAA/NESDIS

(vi) Office of Naval Research Interns in Biomolecular Sciences Research Enhancement Program.

- I served as **Co-Principal Investigator** of the grant (The PI was Dr. Mario Garcia-Rios, Texas A& M International, Laredo, TX).
- **Total Amount of Award** = \$29,662 (2000-2001), \$29,662 (2001-2002), \$93,191 (2002-2005).
- **Funding Agency** = ONR

(vii) Enhancement of the Marine Educational Opportunities for K-12 teachers and students in Jackson, MS.

- I served as the **Principal Investigator** of the grant
- **Total Amount of Award** = \$10,000 (2004-2005).
- **Funding Agency** = Mississippi-Alabama Sea Grant

(viii) NOAA EPP/MSI Environmental Entrepreneurship Program: Program Development and Enhancement in Fisheries Stock Assessment.

- I served as the **Principal Investigator** of the grant (The Co-PIs were Drs. Ambrose Jearld Jr. & Michael Fogarty, NOAA NEFSC Woods Hole).
- **Total Amount of Award** = \$249,986 (2001-2004).
- **Funding Agency** = NOAA

(ix) Sea Grant MSI-Partnership Program to Strengthen Marine Science Program at JSU.

- I served as the **Principal Investigator** of this grant.
- **Total Amount of Award** = \$189,000 (2000-2004).
- **Funding Agency** = NOAA-Sea Grant.

(x) USM-JSU Research Experience for Undergraduates (REU) in Marine and Coastal Sciences.

- I served as the **Co-Principal Investigator** of the grant (The PI was Dr. Chet Rakocinski, University of Southern Mississippi-GCRL).
- **Total Amount of Award** = \$257,064 (2000-2004).
- **Funding Agency** = NSF

(xi) US Gulf of Mexico Marine Stock Enhancement Project

- I served as the Project Director of the grant (Dr. Abdul Mohamed was the PI).
- **Total Amount of Award** = \$400,000 (1999-2005).
- **Funding Agency** = NOAA through USM-GCRL