Joann Mossa, Ph.D.

Department of Geography, P.O. Box 117315, University of Florida, P.O. Box 117315, Gainesville, FL 32611

Phone: (352)-294-7510 E-mail: mossa@ufl.edu

Google Scholar: https://scholar.google.com/citations?hl=en&user=PQUnq2UAAAAJ

RESEARCH INTERESTS

- Fluvial and Coastal Geomorphology, Sediments, Human Impacts and Historical Analysis, Lowland and Disturbed River Floodplains, River Restoration, Fluvial-Coastal interactions, Fluvial and Coastal Hazards, Floods and Droughts

PROFESSIONAL HISTORY

- *Professor (also Associate & Assistant) Professor*, Department of Geography, University of Florida, Gainesville, Florida, Acting Chair intermittently, 1990 - present
- *Undergraduate Coordinator*, 1999 to 2017, Dept. of Geography, University of Florida
- *Affiliate Faculty*, Dept. of Geological Sciences, Hydrologic Sciences Cluster, Interdisciplinary Ecology
- *Visiting Professor*, Sichuan University, Chengdu, China, Summer 2014
- *Consultant*, Publishers, Governmental Agencies, Attorneys, and Private Sector Engineering Firms, 1985-present
- *Visiting Faculty Scientist*, Coastal Engineering Research Center, Waterways Expt. Station, Vicksburg, MS, Summer 1991
- *Research Associate III-IV*, Louisiana Geological Survey, Coastal Geol. Program, Baton Rouge, LA, January 1983 – 1990
- *Instructor*, Department of Mathematics, Louisiana State University, Baton Rouge, LA, 1982
- *Graduate Assistant (Research and Teaching*), Dept. of Geography, LSU, Baton Rouge, LA, 1980-82

EDUCATION

- *Ph.D.*, Geography (Fluvial and Coastal Geomorphology), Louisiana State University, August 1990
- *M.S.*, Geography, Louisiana State University, December 1983
- *B.A.*, Mathematics/Geography, Rutgers University, New Brunswick, NJ, May 1980 (Phi Beta Kappa & Phi Kappa Phi)

MAJOR ACTIVITIES AND ACCOMPLISHMENTS

- Diversity Champion Award Nominee, Recognizing active contributions to promote diversity, University of Florida 2022
- 1st Place, Most Downloaded Paper in Annals of GIS for 2019 (2nd author, led by Ph.D. Graduate C.-Y. Wu), Awarded 2020
- 2nd Place, Most Cited Paper in Annals of GIS for 2019 (2nd author, led by Ph.D. Graduate C.-Y. Wu)),Awarded 2021
- NSF Hydrolearn Fellow, 2020, co-created module on Hydrologic Droughts and Drying Rivers
- President and Past President of SEDAAG, 2017-2021, Southeastern Div. of the American Assoc. of Geographers
- UF Term Professor, College of Liberal Arts and Sciences, 2018-2021
- Recipient of the R.J. Russell Award for 2018, Coastal and Marine Specialty Group, 2018
- Co-facilitator, Geography Faculty Development Alliance (GFDA), Knoxville, TN, 2017
- Outstanding Teaching/Advisor Award, CLAS Evening of Excellence, 2017
- Consultant for Northern Territories Government, Australia to evaluate geomorphic problems, Finke River basin, 2016
- Lifetime Achievement Award, Department of Geography, first recipient, 2016
- Associate Editor, *Physical Geography*, 2013-present (formerly Editorial Board, 2011-2013)
- Served on Editorial Board *of Southeastern Geographer* (7 years + 4 years) and *Journal of Geography* (3 years)
- Worked with South Florida Water Management District on one of the world's largest river restoration projects, the Kissimmee River. In 1998-99 developed restoration expectations and did geomorphic monitoring in 2006-12.
- University faculty advisor of the Year, University of Florida, 2012
- CLAS faculty advisor of the year, University of Florida, 2012
- Guest Editor, Special Issue of *Zeitschrift fur Geomorphologie*, 2002
- President and Meeting/Program Coordinator, Florida Society of Geographers, 2001 and 2020
- Panelist, National Science Foundation, Geography and Regional Science Program, 1998-2000
- Chair and Vice-Chair, Geomorphology Specialty Group, Assoc. of American Geographers, 1998-2000
- Chair and Vice-Chair, Coastal and Marine Geography Spec. Group, Assoc. of American Geographers, 1994-1998
- President and Vice President, Phi Beta Kappa, University of Florida, Beta Chapter of Florida, 1996-98
- Awarded University of Florida Teaching Award, 1998
- Awarded University of Florida Teaching Award, 1994

GRADUATE STUDENT SUPERVISION

- Current (Enrolled): Chair of 3 Ph.D. committees, Member of 7 Ph.D. and 3 M.S. committees
- Past (Graduates): Chair of 10 Ph.D. and 24 M.S. committees, Member of 32 Ph.D. and 26 M.S. committees

SELECTED PUBLICATIONS

- Mossa, J., Chen, Y.-H., (2022). Geomorphic response to historic and ongoing human impacts in a large lowland river, Earth Surface Processes and Landforms, https://doi.org/10.1002/esp.5334
- Wu, C. Y., Mossa, J., Jaeger, J. (2022). Estimate of decadal-scale riverbed deformation and bed-load sediment transport during flood events in the lowermost Mississippi River, Earth Surface Processes and Landforms, https://doi.org/10.1002/esp.5316
- Mossa, J., Chen, Y.-H, (2021). Geomorphic insights from eroding dredge spoil mounds impacting channel morphology, *Geomorphology*, 376, 16 pp, https://www.sciencedirect.com/science/article/pii/S0169555X20305444
- Mossa, J., Chen, Y.H., Kondolf, G.M., & Walls, S.P. (2020). Channel and vegetation recovery from dredging of a large river in the Gulf coastal plain, USA. *Earth Surface Processes and Landforms* 45, 1926–1944, DOI: 10.1002/esp.4856.
- Amanambu, A. C., Obarein, O. A., Mossa, J., Li, L., Ayeni, S. S., Balogun, O., ... & Ochege, F. U. (2020). Groundwater System and Climate Change: Present Status and Future Considerations. *Journal of Hydrology*, 125163, https://doi.org/10.1016/j.jhydrol.2020.125163.
- Chen, Y.H., Mossa, J., & Singh, K.K. (2020). Floodplain response to varied flows in a large coastal plain river. *Geomorphology*, 354, https://doi.org/10.1016/j.geomorph.2020.107035.
- Wu, C.-Y., Mossa, J., 2019. Decadal-scale variations of thalweg morphology and riffle–pool sequences in response to flow regulation in the lowermost Mississippi River. *Water* 11(6), 1175, https://doi.org/10.3390/w11061175.
- Wu, C.-Y., Mossa, J., Mao, L., and Abdulla, M., 2019. Comparison of different spatial interpolation methods for historical hydrographic data of the lowermost Mississippi River, *Annals of GIS*, 25(2), 133-151, https://doi.org/10.1080/19475683.2019.1588781
- Mossa, J., Chen, Y.-H., Walls, S.P., Kondolf, G.M., Wu, C.-Y. (2017) Anthropogenic landforms and sediments from dredging and disposing sand along the Apalachicola River and its floodplain, *Geomorphology*, v. 294: 119-134, http://www.sciencedirect.com/science/journal/aip/0169555X
- Castillo, D., Kaplan, D., & Mossa, J. (2016). A Synthesis of Stream Restoration Efforts in Florida (USA). *River Research and Applications*. 32(7), 1555–1565, DOI: 10.1002/rra.3014
- Prado Jr., F.A., Athayde, S., Mossa, J., Leite, F., Bohlman, S., Oliver-Smith, A. 2016. How Much is Enough? How much is enough? An integrated examination of energy security, economic growth and climate change related to hydropower expansion in Brazil. *Renewable and Sustainable Energy Reviews*, 53, 1132-1136, //doi.org/10.1016/j.rser.2015.09.050.
  Mossa, J. 2016. The changing geomorphology of the Atchafalaya River, Louisiana: A historical perspective. *Geomorphology*, 252, 112-127. http://dx.doi.org/10.1016/j.geomorph.2015.08.018
- Brim-Box, J., and Mossa, J., 1999, Sediments, land use, and freshwater mussels: Prospects and problems: *Journal of the North American Benthologists Society*, v. 18(1), pp. 99-117, http://www.jstor.org/stable/1468011.
- Mossa, J. & McLean, M.B., 1997, Channel planform and land cover changes on a mined river floodplain: Amite River, Louisiana, USA: *Applied Geography*, v. 17(1): 43-54, http://dx.doi.org/10.1016/S0143-6228(96)00026-4.
- Mossa, J., 1996, Sediment dynamics of the lowermost Mississippi River: *Engineering Geology*, v. 45, pp. 457-479, http://dx.doi.org/10.1016/S0013-7952(96)00026-9.

FUNDED PROJECTS

- **As PI or co-PI:** *Current:* US EPA-Gulf of Mexico Program, $262,204; *Completed*: Joint (USGS./USACE./Pat Harrison Waterway District/Miss. Nature Conservancy): $161,674, Federal: USGS-Mineral Resources Program (1: $43,000); USGS-National Biological Service (2: $31,250, $2,500);USGS-National Biological Service (2: $31,250, $2,500); U.S. Army Waterways Experiment Station: $14,690; NOAA/U.S. Department of Commerce: $36,000; National Aeronautics and Space Administration: $453,000, Minerals Management Service (3: $600,000; $27,250; $18,018); State/Water Management Districts: Florida Fish and Wildlife Conservation Comm.: $206,134; Florida Space Institute: $29,973 Florida Institute for Phosphate Research: $382,000; IFAS (2:$12,800; $62,400), St. Johns Water Mgmt. District (6: $210,00; $75,000; $60,000; $35,000; $24,000; $23,925, $121,538); South Florida Water Mgmt. District (5: $33,320; 161,000, $58,000, $66,700; $17,837); Florida Dept. of Transportation: $78,481; Louisiana Department of Natural Resources (4: $62,500; $65,000; $170,000; $170,000), Louisiana Transportation Research Center: $169,483; Other: AAG-NSF-EDGE: $500, Association of American Geographers: $350; UF Div. of Sponsored Research (5: $18,290; $4859; $15,580; $5400; $1700); Tinker Foundation-UF Latin American Studies: $1500; **As co-Investigator:** National Science Foundation IGERT, M.T. Brown and S. Russo, co-PIs (1:$3,294,120); CAPES (1: R$305,448)