# Curriculum Vitae Jay P. Sah, Ph.D.

#### Research Professor

Institute of Environment, an FIU Pre-eminent Program

# Florida International University

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<u>Affiliate Graduate Faculty</u> – Department of Earth and Environment, FIU

<u>Dissertation Advisory Status</u> – Department of Earth and Environment, FIU

<u>Collaborator/Co-Lead</u> (Vegetation Group-Proposal V) – Florida Coastal Everglades (FCE) – LTER

# 1. Career Objective

Be an academician and keep on learning by studying, doing innovative research, and sharing knowledge with students, fellow researchers, and society, primarily in the field of ecology, and provide scientific feedback to the natural resource managers.

#### 2. Education:

- **2002 Ph. D. in Biology** (Ecology)-Florida International University, Miami, FL 33199, USA. (Dissertation: Vegetation Dynamics and their Implications for the Management of Wetlands in the Lowlands of Nepal)
- 1993 M. Sc. in Natural Resources Planning Management-Asian Institute of Technology, Bangkok, Thailand. (Thesis: Wetland Vegetation and Its Management: A Case Study in Koshi Tappu Region, Nepal)
- 1983 Degree (M. Sc.) in Botany (Ecology)-Tribhuvan University, Kathmandu, Nepal. (Thesis: Nutrient Content in Leaf Litter of Major Tree Species at Phulchoki Hill, Kathmandu, Nepal)

# 3. Areas of Professional Work:

Research and Teaching. Research Areas: Vegetation-environmental Relationships, Disturbance Ecology, Community Ecology, Wetland Ecology and Management, Biodiversity Conservation, Environmental Management, Environmental Impact Assessment, and Interdisciplinary Approach to Natural Resource Ecology and Management

#### Major research activities are:

- Study of plant community structure and function
- Analysis of abiotic and biotic responses to natural and anthropogenic disturbances to answer a wide range of ecological questions at various spatial and temporal scales by using multivariate statistical techniques and Geographic Information Systems (GIS)
- Strategic analysis of integrating ecological and socio-economic approaches in natural resources and environmental management.

# 4. Awards and Scholarships:

- 20-Year Service Award: Florida International University. Spring 2024
- 2022 CESU Network National Award: In recognition of outstanding contributions to the Cooperative Ecosystem Studies Units (CESU) Network, USA. June 2022
- 15-Year Service Award: Florida International University. Spring 2019
- **Research Excellence Award**: College of Arts, Science and Education (CASE), Florida International University. Fall 2017.
- 10-Year Service Award: Florida International University. Fall 2013
- Tropical Biology Dissertation Fellowship: Research fellowship and Tuition waiver. Spring 2001.
- **Teaching/Research Assistantship and Tuition Waiver:** At Florida International University. Aug.1995-April 1997; Jan. 2000 Aug. 2002.
- **British Council Visitors Programme Award** To attend the conference on "Interdisciplinary Systems Dynamics" at the University of Stirling, Stirling, United Kingdom. July 1994.
- The James A. Linen III Memorial Prize: For First position among students in Interdisciplinary Natural Resources Development and Management Program graduating on 19th August 1993 from Asian Institute of Technology, Bangkok, Thailand.
- Canadian International Development Agency (CIDA) Scholarship (Through AIT, Bangkok): For studying Masters' Degree in Natural Resource Management at Asian Institute of Technology, Bangkok, Thailand (Through AIT).
- **Meritorious Scholarship:** For securing highest marks among students graduating from Central Department of Botany, T. U. Kirtipur, Kathmandu, during 1981/1982.

# 5. Work Experience:

# A. Teaching and Research (Professional appointments):

2024 - Research Professor

Institute of Environment (IOE), Florida International University (FIU), Miami, FL.

Activities: — Lead scientist (PI) in several (6-7) monitoring/research projects and Co-PI in some (2-3) research projects, primarily related to plant community and ecosystem responses to changes environmental drivers and stresses, including hydrology, fire regimes, and both natural and anthropogenic disturbances in South Florida. Primary activities include research project conceptualization, proposal writings, research design and fieldwork coordination, data analysis and report writing, presentation at various meetings, publications, and supervising graduate students' research.

2017 - 2024 Research Associate Professor Institute of Environment (IOE), Florida International University (FIU), Miami, FL.

Activities: — Lead scientist (PI) in several (5-6) monitoring/research projects and Co-PI in some (2-5) research projects, primarily related to community and ecosystem responses to changes in hydrologic and fire regimes, and windstorms in South Florida. Primary activities include research project conceptualization, proposal writings, research design and fieldwork

		coordination, data analysis and report writing, presentation at various meetings, manuscript preparation and publication, and supervising graduate students' research.	
2007 -2017	Research Associate/Faculty	Southeast Environmental Research Center (SERC), Florida International University (FIU), Miami, FL.  Activities: (PI or Co-PI) – Research proposal writings, field observations, data analysis, report writing, presentation of results at various meetings, and manuscript preparation for several research projects (primarily related to vegetation responses to changes in hydrologic and fire regimes, and windstorms in South Florida)	
2003 – 2007	Visiting Research Associate	Southeast Environmental Research Center (SERC), FIU, Miami, FL. (Research Design, Coordination of field works, data analysis, report writing, presentations at the meetings, manuscript preparation). Focus: South Florida ecosystems, including an endangered species (Cape Sable seaside sparrow) habitat.	
2002 – 2003	Postdoctoral Research Associate	Southeast Environmental Research Center (SERC), FIU, Miami, FL. (Research Design, Coordination of field works, data analysis, report writing, presentations at the meetings, manuscript preparation-analyzed Tree Island and L-31 vegetation data, and wrote the vegetation part of the comprehensive report for those projects)	
1992 – 2002	Lecturer*	Central Department of Botany, Tribhuvan University, Kirtipur, Kathmandu, Nepal ( <i>Designed courses, taught plant ecology; conducted research and supervised M. Sc. students' thesis</i> (8)).	
1984 – 1992	Assistant Lecturer *	Central Department of Botany, Tribhuvan University, Kirtipur, Kathmandu, Nepal. ( <i>Taught plant ecology, anatomy, and embryology, and labs related to general botany, including plant physiology, plant genetics, and taxonomy: engaged in research, and supervised M. Sc. student's thesis (1)).</i>	
(*Full time regular faculty position: on paid-study leave-Jan 1992 to Dec 1994: Aug 1995 to Aug			

 $(*Full\ time\ regular\ faculty\ position;\ on\ paid-study\ leave-Jan\ 1992\ to\ Dec\ 1994;\ Aug\ 1995\ to\ Aug\ 1998;\ On\ leave\ w/t\ pay\ -\ 2000\ to\ 2002)$ 

# **B.** Teaching & Research (Others):

2008 Spring	Adjunct Instructor	Taught EVR-4026: Biotic Resources at Florida International University, Miami, USA.
2002 – 2003	Adjunct Instructor	Department of Biological Sciences, Florida International University, Miami, USA ( <i>Taught undergrad Biology Lab.</i> )
2000 – 2002	Research Assistant	Southeast Environmental Research Center, Florida International University, Miami, FL 33199. (Field observations, Data analysis – <i>Analyzed Shark Slough vegetation data; Big Pine Key fire monitoring data</i> )

2000 – 2001	<b>Teaching Assistant</b>	Department of Biological Sciences, Florida International University, Miami, USA ( <i>Taught undergrad Biology Lab</i> )
1996 – 1997	Research Assistant	Southeast Environmental Research Program, Florida International University, Miami, FL 33199. (Worked as Data Analyst – analyzed C111 vegetation data, Pit-Mound data; contributed to report writing)
1995 – 1997	Teaching Assistant	Department of Biological Sciences, Florida International University, Miami, USA ( <i>Taught undergrad Biology Lab</i> )
1994 – 1995	Adjunct Teacher	Cornell-Nepal Study Program, Kirtipur, Kathmandu. (Worked as a part-time teacher for teaching Ecology and Environment and supervising students' research projects)
1994	Adjunct Instructor	Central Department of Geography, Tribhuvan University, Nepal. Worked as a part-time instructor for giving training on GIS for Natural Resource Management. (Four weeks)
1993	Research Associate	IUCN Southeast Asia Regional Program, Asian Institute of Technology, and Bangkok. (Manuscript preparation for the book, "Koshi Tappu Wetlands: Nepal's Ramsar Site)
1990 – 1991	Science Teacher	Rhododendron International Boarding School, Kalanki, Kathmandu. (Part-time teacher for teaching Physics)
1985 – 1988	Science Teacher	Prabhat Secondary School, Tyagal, Lalitpur, Kathmandu. (Part-time teacher for teaching integrated science - Physics, Chemistry and Biology)
1977	Assistant to Meteorologist	Meteorological Station, Tribhuvan International Airport, Nepal. (Recording & plotting meteorological data)

# 6. Postdoc/Students supervised/member on research committee:

#### Post-doc

- 1. Dr. Deusdedith Rugemalila (Jan. 2022 Sept. 2024)
- 2. Dr. Lu Zhai (Sept. 2017- Dec 2018)

#### Ph.D. Students (In progress)

- 1. Julianne Buggs- Department of Biological Sciences. 2024 ... (Committee Member; Major Prof. Dr. Anna Simonsen)
- 2. Kevin Montiel Department of Biological Sciences. 2024 ... (Committee Member; Major Prof. Dr. Anna Simonsen)
- 3. Veronica Restrepo Department of Biological Sciences. 2023 ... (Committee Member; Major Prof. Dr. John Kominoski)
- 4. Paige M. Kleindl Department of Biological Sciences. 2022 ... (*Committee Member; Major Prof. Dr. Evelyn Gaiser*)
- 5. Carlos Pulido Depart of Earth and Environment. 2021 ... (*Co-Major Professor*)
- 6. Ximena Mesa Department of Biological Sciences. 2020 ... (Co-Major Professor)
- 7. Nicole Strickland Department of Biological Sciences. 2018 ... (*Committee Member; Major Prof. Dr. Joel Trexler*).

# **MS Students (In progress)**

- 8. Sriram Narasimhan Department of Earth and Environment. 2024 ---- (*Major Professor*)
- 9. Christina Tilley Department of Biological Sciences. 2024 ... (Committee Member; Major Prof. Dr. Nathan Dorn)

# **Ph.D. Students (Completed)**

- 1. Lukas Lamb-Wotton Department of Biological Sciences. 2024. (*Committee Member; Major Prof. Dr. Tiffany Troxler*)
- 2. Kenneth Anderson Department of Biological Sciences. 2023. (Committee Member; Major Prof. Dr. John Kominoski)
- 3. Suresh Subedi Department of Earth and Environment. 2017. (*Committee Member; Major Prof. Dr. Michael Ross*).
- 4. Beyte Barrios Department of Biological Sciences. Spring 2015. (*Committee Member; Major Prof. Dr. Suzanne Koptur*).

# **MS Students (Completed)**

- 1. Jordon King Department of Biological Sciences. 2024. (Committee Member; Major Prof. Dr. John Kominoski)
- 2. Katherine Castrillon Department of Earth and Environment. 2024. (*Committee Member; Major Prof. Dr. Michael Ross*)
- 3. Meghan Gonzalez Department of Earth and Environment. 2018. (Supervisor of her non-thesis research project).
- 4. Kathryn Braddock Department of Earth and Environment. 2017. (*Committee Member; Major Prof. Dr. Joel Heinen.*).
- 5. Andrea Salas Department of Earth and Environment. Summer 2016: (*Committee Member; Major Prof. Dr. Suzanne Koptur.*).

**M. Sc. Students (Completed):** I served as the Major Supervisor. The master's theses were submitted to Central Department of Botany, Tribhuvan University, Nepal. (*In Tribhuvan University, a master's thesis was supervised by only major professor (one-to-one), and graded by an external examiner)* 

- 1. Sharma, Indu. 2001. Effect of brewery industry effluents on agricultural crops and soils in Kathmandu.
- 2. Sharma, Bindu. 2000. Above Ground Biomass and Primary Productivity in the Grassland of Royal Shuklaphanta Wildlife Reserve, Nepal. (Working for an International NGO in Nepal)
- 3. Poudyal, Srijana. 2000. Impact of Management Practices on Species Composition and Soil Characteristics in Grasslands of Royal Shuklaphanta Wildlife Reserve, Nepal. (In UK)
- 4. Poudyal, Shishir. 2000. Comparative Study of Vegetation Structure and Soil Characteristics in Community- and Government-managed Forests in the Udayapur District, Nepal. (Completed Ph.D. from Southern Illinois University at Carbondale, IL, USA and currently, at Phipps Conservatory and Botanical Gardens, Pittsburgh, PA, USA)
- 5. Ghimire, Kavita. 1999. Impact of Air Pollution on Roadside Vegetation in Urban area of Kathmandu Valley.
- 6. Acharya, Prashuram 1997. Wetland Vegetation and its utilization in Ghodaghodi and Nakharodi Tal, Nepal. (Working as a wetland ecologist/arborist in Seattle, WA, USA)
- 7. Shrestha, Krishna B. 1997. *Plant Diversity along Environmental and Disturbance gradients in the Oak Forest on Phulchoki Hill, Nepal.* (Completed Ph.D. at the University of Bergen, Norway)
- 8. Yadav, Ram K. 1994. *Quantitative Analysis of Vegetation (Trees and Shrubs) on Nagarjun Hills, Phulchoki Hills, Kathmandu.* (Obtained Ph.D. from Greece, and working as Professor in Nepal)

9. Acharya, Sunil K. 1989. *Study of Family Fagaceae on Phulchoki Hill*. (Senior Botanist, Plant Research Center, Nepal Government)

# **Undergrad Students:**

- 1. Divantoque Amaya, Matheus. 2024. Functional trait analysis of Muhly grass and Sawgrass to support habitat creation for the Cape Sable seaside sparrow. Sparrow. Funded under the FIU's NSF-funded Coastal Ecosystems Research Experience for Undergraduates (REU) Site program. (Supervisor with Carlos Pulido, co-mentor)
- 2. Javier, Jose. 2008. *The effects of wildfires on the magnetic properties of soils in the Everglades*. Funded under the FCE-LTER Research Experience for Undergraduates (REU) Program. (As a cosupervisor with Dr. Brad Clement, Department of Earth Sciences, FIU)

#### 7. Professional Services

# A. San Francisco Estuary Partnership

Member – Science Review Team for "State of The Estuary 2024 (SOTER)" Report on the Status of Estuary - San Francisco Bay and Sacramento-San Joaquin River Delta. (Jan 2023 – Present)

# **B. FIU GIS Advisory Committee**

Member – Florida International University (FIU) GIS Advisory Committee

# C. Professional Society's Committee

Member (2020-2024) - Society of Wetland Scientists (SWS) Membership Committee

# D. Editors/Associate Editor:

**Advisory Editor** (**2015 – Present**): *Journal of Wetlands Environmental Management*. Published by – Lambung Mangkurat University, Banjarmasin, Indonesia.

**Editor** (2011 – 2014): *Himalayan Journal of Sciences*. Published by – Himalayan Association for the Advancement of Science.

**Editor** (2009 – 2012): *Journal of Wetlands Ecology*. Publisher - Wetland Friends of Nepal/Nature and Human Academy Nepal (NHAN).

**Associate Editor** (1998 – 1999): *Ecoprint* - An International Journal of Ecology. Published by Ecological Society (ECOS), Kathmandu, Nepal. Volumes 5 and 6.

### E. Reviewed manuscripts/Reports for the Journals/Organizations

Journals: Wetlands, Wetland Ecology and Management, Tropical Ecology, Restoration Ecology, Plant and Soil, Journal of Hydrology, Freshwater Science, Fire Ecology, International Journal of Wildland Fire, Endangered Species Research, Natural Areas Journal, Energy and Fuels, Castanea, Complex Systems, Ecological Engineering, Forest Ecology and Management, Annals of Forest Science, Journal of Forest Research, Forests, Journal of Wetlands Environmental Management, Population and Environment, Environmental Conservation, Journal of Environmental Management, Environmental Quality Management, Journal of Environmental Quality, Environmental Monitoring and Assessment, Southeastern Naturalist, Sustainability, Plants, Lands, Diversity, Himalayan Journal of Sciences, Ecoprint, Journal of Natural History Museum (Nepal), Botanica Orientalis (Nepal).

#### 8. Publications:

#### A. Book:

**Sah, J. P.** 1997. *Koshi Tappu Wetlands: Nepal's Ramsar Site*. IUCN-Nepal in collaboration with IUCN-Wetland Program, South and South-east Regional Office, Bangkok. pp. 254. ISBN 2-8317-0237-2.

#### **B.** Conference Proceedings:

- 1. Richard, C., Sah, J. P., Basnet, K., Karki, J., Subba, B., and Raut, Y. (Eds.). 2000. *Grassland Ecology and Management in Protected Areas of Nepal*. Vol. I: Action Summary. 102 pp.
- 2. Richard, C., Basnet, K., **Sah, J. P.**, and Raut, Y. (Eds.) Vol. II: *Technical and Status Papers on Grasslands of Terai Protected Areas*. 137 pp.
- 3. Richard, C., Basnet, K., **Sah, J. P.**, and Raut, Y. (Eds.) Vol. III *Technical and Status Papers on Grasslands of Mountain Protected Areas*. 104 pp.

  Proceedings of the International Workshop on Grassland Ecology and Management in Protected Areas of Nepal, March 14-19, 1999, Nepal. Department of National Parks and Wildlife Reserve (DNPWC)/International Center for Integrated Mountain Development (ICIMOD)/WWF- Nepal, Kathmandu, Nepal ISBN # 92-9115-166.

# C. Book Chapters:

- 1. Heinen, J. T., Baral, N., Paudel, P. K. and **Sah, J. P.** (2020). On the Road to Sustainability? A Review of a Half-Century of Biodiversity Conservation Successes in Nepal and Some Thoughts on Future Needs. In: A. Bakar and Md. N. Suratman (Eds.) *Protected Areas, National Parks and Sustainable Future*. pp: 71-87. London, United Kingdom (UK): IntechOpen. ISBN # 978-1-78984-230-2. (Book Chapter)
- Davis, S. E., Castaneda-Moya, E. Boucek; with R., Chambers, R. M., Collado-Vides, L., Fitz, H. C., Fuentes, J. D., Gaiser, E. E., Heithaus, M. R., Rehage, J. S., Rivera-Monroy, V. H., Sah, J. P., Sklar, F. H. and Troxler, T. (2019). Exogenous Drivers What Has Disturbance Taught Us? In: D. L. Childers, E. E. Gaiser and L. A. Ogden (Eds.) The Coastal Everglades: The Dynamics of Social-Ecological Transformation in the South Florida Landscape. pp. 162-201. New York, NY, USA: Oxford University Press. ISBN # 978-0-19-086900-7. (Book Chapter)
- 3. **Sah, J. P.** and Sah, S. K. (1999). Wetlands of Nepal: Biodiversity and its Conservation. In: T. C Majupuria and R. M. Kumar (Eds.), *Nepal-Nature's Paradise*. pp. 569-594. Gwalior, India: Devi Publishers. ISBN # 974-8614-94-8 (Book Chapter)

# D. Research Papers (Peer-reviewed Journals):

- 1. Kleindl, P., Wachnicka, A., **Sah, J.**, Ross, M. and Gaiser, E. Hydrology drives facilitative and competitive strategies in freshwater macrophyte and microbial communities. *Ecological Monographs* (Submitted).
- 2. Meeder, J. F., Stoffella, S. L., Ross, M.S., Ruiz, P. L. and **Sah, J. P.** Bedrock degradation by Hurricane Andrew wind-blown pine trees, South Florida, USA. *Catena* (Submitted).
- 3. Primoli, A., Koptur, S., Jayachandran, K., **Sah, J. P.**, Ayala-Silva, T. and Carrillo, D. Effects of host-plant density on caterpillar herbivores and their parasitoids. *Annals of the Entomological Society of America* (Under revision)
- 4. Alwakeel, J. A., Price, R. M., Scinot, L. J., Ross, M. S., **Sah, J. P.**, Stoffella, S. L., Sklar, F. H. and Cline, E. A. Calcium carbonate formation below the groundwater table in response to tree transpiration. *Chemical Geology* (Under revision)
- 5. Ross, M. S., Stoffella, S. L., Ruiz, P. L., Subedi, S. C., Meeder, J. F., **Sah, J. P.**, Vidales, R., Minchin, P. R. and Scinto, L. J. (2024) Transient vegetation dynamics in a tropical coastal wetland:

- sea-level rise, glycophyte retreat, and incipient loss in plant diversity. *Journal of Vegetation Science*. 2024;**35**: e13267. doi.org/10.1111/jvs.13267.
- 6. Nocentini, A., Redwine, J., Gaiser, E., Hill, T., Hoffman, S., Kominoski, J., **Sah, J.**, Shinde, D., Surratt, D. (2024). Rehydration of degraded wetlands: understanding drivers of vegetation community trajectories. *Ecosphere* 2024; **15**: e4813. doi: 10.1002/ecs2.4813.
- 7. Anderson, K. J., Kominoski, J. S. and **Sah, J. P.** (2024). Intrinsic and extrinsic drivers of organic matter processing along phosphorus and salinity gradients in coastal wetlands. *Journal of Ecology* **112**: 1313-1325. doi: 10.1111/1365-2745.14302.
- 8. Stoffella, S. L., Ross, M.S., **Sah, J. P.**, Price, R., Scinto, L., Cline, E. A. and Sklar, F. (2022). Flooding and planting density shape forest in an experimental Everglades landscape: lessons for forest restoration. *Ecosphere* 2022; **13**: e4223. doi: 10.1002/ecs2.4223.
- 9. Zhang, B., Wdowinski, S., Gann, D., Hong, S. and **Sah, J. P.** (2022). Spatiotemporal variations of wetland backscatter: The role of water depth and vegetation characteristics in Sentinel-1 dual-polarization SAR observations. *Remote Sensing of Environment* **270** (2022): 112864.
- 10. Nocentini, A., Kominoski, J. and **Sah, J. P.** (2021). Interactive effects of hydrology and fire drive differential biogeochemical legacies in subtropical wetlands. *Ecosphere* **12** (**3**): e03408. doi: 10.1002/ecs2.3408.
- 11. Almeida, B., Ross, M., Stoffella, S., **Sah, J. P.**, Cline, C., Sklar, F. and Afkhami, M. (2020). Diversity and structure of soil fungal communities across experimental Everglades tree islands. *Diversity* 2020, **12**, 0324; doi:10.3390/d12090324.
- 12. Subedi, S. C., Bhattarai, K. R., Perez, T. M. and **Sah, J. P.** (2020). Gymnosperm species richness patterns along the elevation gradient and its comparison with other groups of the plant in the Himalayas. *Frontiers of Biogeography* 2020, **12.1**, e44232.
- 13. Guzman, A., Heinen, J. T. and **Sah, J. P.** (2020). Evaluating the Conservation Attitudes, Awareness and Knowledge of Residents towards Vieques National Wildlife Refuge, Puerto Rico. *Conservation and Society* **18** (1):13-24.
- 14. Ross, M. S., Ogurcak, D. E., Stoffella, S., **Sah, J. P.**, Hernandez, J. and Willoughy, H. (2019). Hurricanes, storm surge, and pine forest decline on a low limestone island. *Estuaries and Coasts* (First published online: doi: 10.1007/s12237-019-00624-z).
- 15. Subedi, S. C., Hogan, J. A., Ross, M. S., **Sah, J. P.** and Baraloto, C. (2019). Evidence for trait-based community assembly patterns in hardwood hammock forests. *Ecosphere* **10** (**12**): e02956. 10.1002/ecs2.2956.
- 16. Ogurcak, D. E., **Sah, J. P.**, Price, R. M. and Ross, M. S. (2019). Shifting baselines in coastal forests: rising seas transform plant communities from the 'ground' up. *Forest Ecology and Management* **453** (2019) 117581 (doi: 10.1016/j.foreco.2019.117581)
- 17. Subedi, S. C., Ross, M. S., **Sah, J. P.,** Redwine J. and Baraloto, C. (2019). Trait-based community assembly pattern along a forest succession gradient in a seasonally dry tropical forest. *Ecosphere* **10** (4): e02719.10.1002/ecs2.2719
- 18. Marazzi, L., Gaiser, E., Eppinga, M., **Sah, J. P.,** Zhai, L., Castaneda-Moya, E. and Angelini, C. (2019). Why do we need to document and conserve foundation species in freshwater wetlands? *Water* **11**, 265: 1-29.
- 19. Subedi, S. C., Ross, M. S., Vidales, R., **Sah, J. P.,** Sternberg, L. (2018). Variation in stomatal characteristics of *Bursera simaruba*, a dominant tree species of tropical hardwood hammock forest across a habitat gradient in the Florida Keys. *American Journal of Plant Sciences* **9**: 2120-2139.
- 20. Davis, S. E., Boucek, R., Castañeda-Moya, E., Dessu, S., Gaiser, E., Kominoski, J., **Sah, J. P.**, Surratt, D. and Troxler, T. (2018). Episodic disturbances drive nutrient dynamics along freshwater-to-estuary gradients in a subtropical wetland. *Ecosphere* **9** (6): e02296. 10.1002/ecs2.2296.
- 21. **Sah, J. P.,** Ruiz. P. L. and Ross, M. S. (2018). Spatio-temporal pattern of plant communities along a hydrologic gradient in Everglades tree islands. *Forest Ecology and Management* **421**:16-31.
- 22. Wetzel, P., **Sah, J. P.** and Ross, M. S. (2017). Tree Islands: The Bellwether of Everglades Ecosystem Function and Restoration Success. *Restoration Ecology* **25** (**S1**): S71-S85.

- 23. Barrios, B., Koptur, S. and **Sah, J. P.** (2017). The effects of habitat fragmentation on the reproduction and abundance of *Angadenia berteroi*. *Journal of Plant Ecology* **10** (2): 340-348.
- 24. Sullivan, P. L., Price, R. M., Ross, M. S., Stoffella, S. L., Sah, J. P., Scinto, L. J., Cline, E., Dreschel, T. W. and Sklar, F. H. (2016). Trees: a powerful geomorphic agent governing the landscape evolution of a subtropical wetland. *Biogeochemistry* 128: 369-384
- 25. Ross, M. S., **Sah, J. P.**, Ruiz, P. L., Spitzig, A. and Subedi, S. (2016). Inferring implications of climate change in patchy tropical dry forests through analysis of metacommunity structure. *Diversity and Distributions* **22**: 783-796.
- 26. Paudel, S. and Sah, J. P. (2015). Effects of different management practices on stand composition and species diversity in sub-tropical forests in Nepal: Implications of community participation in biodiversity conservation. *Journal of Sustainable Forestry* 34: 738-760.
- 27. **Sah, J. P.**, Ross, M. S., Saha, S., Minchin, P. and Sadle, J. (2014). Trajectories of vegetation response to water management in Taylor Slough, Everglades National Park, Florida. *Wetlands* **34** (**Suppl 1**): S65-S79.
- 28. Ross, M. S., **Sah, J. P.**, Meeder, J. F., Ruiz, P. L. and Telesnicki, G. (2014). Compositional effects of sea-level rise in a patchy landscape: the dynamics of tree islands in the southern coastal Everglades. *Wetlands* **34** (**Suppl 1**): S91-S100.
- 29. Ruiz, P. L., **Sah, J. P.**, Ross, M. S. and Spitzig, A. A. (2013). Tree island response to fire and flooding in the short-hydroperiod marl prairie grasslands of the Florida Everglades. *Fire Ecology* **9** (1): 38 54.
- 30. Shrestha, K. B., Måren, I. E., Arneberg, E., **Sah, J. P.** and Vetaas, O. R. (2013). Plant diversity along an anthropogenic disturbance gradient in the oak forests of the Middle Hills, Nepal, Central Himalaya. *International Journal of Biodiversity Science, Ecosystem Services & Management* **9** (1): 21-29.
- 31. Ross, M. S. and **Sah, J. P.** (2011). Forest resource islands in a sub-tropical marsh: soil-site relationships in Everglades hardwood hammocks. *Ecosystems* **14**: 632-645.
- 32. Espinar, J., Ross, M. S. and **Sah, J. P.** (2011). Pattern of nutrient availability and plant community assemblage in Everglades tree islands, Florida USA. *Hydrobiologia* **667**: 89-99.
- 33. D'Odorico, P., Engel, V., Carr, J., Oberbauer, S. F., Ross, M. S. and **Sah, J. P.** (2011). Tree-grass coexistence in the Everglades freshwater system. *Ecosystems* **14**: 298-310.
- 34. Clement, B. M., Javier, J., **Sah, J. P.** and Ross, M. S. (2011). The effects of wildfires on the magnetic properties of soils in the Everglades. *Earth Surface Processes and Landforms* **36**: 460-466.
- 35. Stoffella, S. L., Ross, M.S., **Sah, J. P.**, Price, R., Sullivan, P. and Cline, E. A. (2010). Survival and growth responses of eight Everglades tree species along an experimental hydrologic gradient on two tree island types. *Applied Vegetation Science* **13**: 439-449.
- 36. Hanan, E. J., Ross, M.S., Ruiz, P. L., and **Sah, J. P.** (2010). Multi-scaled grassland-woody plant dynamics in the heterogeneous marl prairies of the southern Everglades. *Ecosystems* **13**:1256-1274.
- 37. **Sah, J. P.**, Ross, M.S., Snyder, J. R. and Ogurcak, D. E. (2010). Tree mortality following prescribed fire and a storm surge event in slash pine (*Pinus elliottii* var. *densa*) forests in the Florida Keys, USA. *International Journal of Forestry Research* (Volume **2010**, Article ID 20495; 13 pp. doi: 101155/2010/204795.
- 38. Ross, M. S., Ogurcak, D. E., **Sah, J. P.** and Ruiz, P. L. (2010). Using Florida Keys reference sites as a standard for restoration of forest structure in Everglades tree islands. *International Journal of Forestry Research*. Volume **2010**, Article ID 176909; 8 pp. doi:10.1155/2010/176909.
- 39. Ross, M. S., Ruiz, P. L., **Sah, J. P.** and Hanan, E. J. (2009). Chilling damage in a changing climate in coastal landscapes of the sub-tropical zone: a case study from south Florida. *Global Change Biology* **15** (7):1817-1832.
- 40. Armentano, T. V., **Sah, J. P.**, Ross, M. S., Jones, D. T., Cooley, H. C. and Smith, C, S. (2006). Rapid responses of vegetation to hydrological changes in Taylor Slough, Everglades National Park, Florida, USA. *Hydrobiologia* **569**: 293-309.

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# E. Research Papers/Chapters (Conference Proceedings, Edited Reports, and others):

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- 2. Nocentini, A., Kominoski, J., **Sah, J. P.**, Redwine, J., Gue, M., Wilson-Navarro, I., Gill, A. (2021). Prescribed fires inside Everglades National Park (Florida, US). *The Bulletin of Ecological Society of America* **102** (2): doi: 10.1002/bes2.1872.
- 3. Stoffella, S., Ross, M. S., **Sah, J. P.**, Cline, E. and Sklar, F. (2021). Stand survival and growth along a flooding gradient in an experimental tree island: Lessons for forest restoration. In: F. H. Sklar (Ed.) *The South Florida Environmental Report (SFER) Volume 1: Chapter 6*. pp. 6-94 to 6-101. South Florida Water Management District (SFWMD), FL, USA.
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# F. Semi-Technical Papers:

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- 7. Sah, J. P. (1998). Rani Tal: A threatened Wetland. The Kathmandu Post, Sept. 6, 1998: 1.
- 8. **Sah, J. P.** (1998). Koshi Tappu Wetlands: The Area of Rich Biological Resources. *Welcome* (Nepal) 6 (2): 50-55.
- 9. **Sah, J. P.** and Suselo, T. B. (1996). Ecology and Management of Wild Water Buffalo (*Bubalus bubalis*) in Nepal. *Tiger paper* (FAO, Bangkok) 23 (4): 18-21.
- 10. **Sah, J. P.** (1993). Effect of the Koshi River in Koshi Tappu Region, Nepal. *IUCN Wetland Newsletter* (Gland, Switzerland) 8: 12-13.
- 11. **Sah, J. P.** and Suselo, T. B. (1993). Wetland Vegetation and Its Management in Koshi Tappu, Nepal: An overview. *Natural Resources Program Newsletter* (AIT, Bangkok) 5 (2): 11-12.
- 12. **Sah, J. P.** (1991). Biotechnology and Environment. *Science Souvenir* 2. BOTSA, Central Department of Botany, Tribhuvan University, Kirtipur, Kathmandu, Nepal: 21-24.
- 13. **Sah, J. P.** (1989). Global Warming and Plant World. *Science Souvenir* 1. Central Department of Botany, Tribhuvan University, Kirtipur, Kathmandu, Nepal: 49-51.

#### G. Book Review:

1. **Sah J. P.** (1999). Review of "Ecology of Wetlands and Associated Systems". Edited by S. K. Majumdar, E. W. Moller and F. J. Brenner. The Pennsylvania Academy of Science, Easton, PA 18042, USA. *Ecoprint* **6** (1): 78.

#### H. Abstracts (Published-online):

- 1. **Sah. J. P.**, Ross, M. S., Ruiz, P. L., Pulido, C., Stoffella, S. (2024). Fire and flooding interactions and their effects on vegetation trajectories in marl- and peat- dominated wetlands in Everglades, Florida, USA. *SWS Meeting-2024*.
- 2. **Sah, J. P.,** Pulido, C., Ross, M. S., Stoffella, S., and Vidales, R. (2023). Effects of hydrologic changes on vegetation and soil characteristics along marl prairie-Slough gradients in Everglades, Florida. *The 108<sup>th</sup> ESA Meeting 2023*.
- 3. Rugemalila, D., **Sah, J. P.,** Stoffella, S., Castaneda, S., Castrillon, K., Constant, B., Heffernan, J., and Ross, M. S. (2023). Local, spatial, and temporal variability in vegetation species composition in relation to environmental heterogeneity in the Everglades ecosystem. *The 108<sup>th</sup> ESA Meeting* 2023.
- 4. **Sah, J. P.,** Ross, M. S., Snyder, J. R., Stoffella, S. and Ruiz, P. L. (2023). Long-tern vegetation dynamics in Cape Sable seaside sparrow habitat: Lessons learned and implications for Everglades restoration. *GEER 2023 Conference Abstract Compilation*.
- 5. Choi, J., Harvey, J., Larsen, L., Saunders, C., Newman, S., Zweig, C., Jackson, L., Tate-Boldt, E., Sklar, F., Wilcox, W., **Sah, J. P.,** and Ho, D. (2023). Biophysically-based simulations of sheet flow at the Decomp Physical Model (DPM) to assess restoration challenges. *GEER 2023 Conference Abstract Compilation*.
- 6. Hernandez, M., **Sah, J. P.,** Vidales, R., Stoffella, S. Ross, M. S. and Castrillon, K. (2023). Distribution of C3 and C4 plants along hydrological gradient in the Everglades. *GEER 2023 Conference Abstract Compilation*.
- 7. Mesa, X., **Sah, J.** and Gann, D. (2023). Environmental heterogeneity and spatial patterns of woody vegetation in the greater Everglades. *GEER 2021 Conference Abstract Compilation*.
- 8. Nocentini, A., Redwine, J., Gaiser, E., Hill, T., Hoffman, S., Kominoski, J., **Sah, J.,** Shinde, D. and Surratt, D. (2023). Rehydration drives landscape-scale shifts in wetland vegetation relative to patch-scale effects of chemistry and fire. *GEER 2023 Conference Abstract Compilation*.
- 9. Pulido, C., **Sah, J.** and Gann, D. (2023). Assessing plant taxonomic and functional diversity along hydrologic gradients: an integrated field and remote sensing approach. *GEER 2023 Conference Abstract Compilation*.
- 10. Rugemalila, D., **Sah, J. P.,** Stoffella, S., Castaneda, S., Castrillon, K., Constant, B., Heffernan, J. and Ross, M. S. (2023). Local and spatial variability in vegetation species composition in relation to environmental heterogeneity in the Everglades ecosystem. *GEER 2023 Conference Abstract Compilation*.
- 11. Stoffella, S. L., Ross, M. S. and **Sah, J. P.**, Price, R., Scinto, L., Cline, E., and Sklar, F. (2023). Flooding and plant density shape forests in an experimental Everglades Landscape: Lessons for forest restoration. *GEER 2023 Conference Abstract Compilation*.
- 12. **Sah, J. P.,** Ross, M. S., Stoffella, S., Ruiz, P. L. and Mesa, X. (2021). Overstory-understory relationships along flooding gradients in Everglades tree islands. *The 106<sup>th</sup> ESA Meeting* 2021.
- 13. **Sah, J. P.,** Isherwood, E., Heffernan, J., Ross, M. S. (2021). Spatial structure in species composition within the Everglades ridge and slough landscape: Present condition and restoration challenges. *SWS Annual Meeting* 2021.
- 14. Stoffella, S. L., Ross, M. S. and **Sah, J. P.** (2021). Stand survival and growth along a flooding gradient in an experimental tree island: lessons for forest restoration. *GEER 2021 Conference Abstract Book.* p. 198.
- 15. **Sah, J. P.,** Richards, J. H., Ross, M. S., Stoffella, S. L., Cline, E. and Sklar, F. H. (2021). Incident light and flooding combine to determine understory plant composition in an experimental Everglades tree island. *GEER* 2021 Conference Abstract Book. p. 178.
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- 17. Redwine, J., Saunders, C., Zweig, C., Atkinson, A., Nocentini, A., Rudnick, D. T., Sklar, F., Newman, S., Shinde, D., Hill, T., Surratt, D., Kominoski, J. and **Sah, J. P.** (2021). Bridging towards restoration: how expanding adaptive management processes will influence the next decade of ecological conditions in northeast Shark River Slough. *GEER 2021 Conference Abstract Book*. p. 163.
- 18. Pulido, C., **Sah, J.** and Valverde, O. (2021). Variation in belowground functional traits of plant species along the marl prairie-slough gradients in the Everglades. *GEER 2021 Conference Abstract Book.* p. 161.
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- 21. Choi, J., Harvey, J., Wasantha, L., Larsen, L., **Sah, J. P.,** Zweig, C., Jackson, L., Tate-Boldt, E., Newman, S., Saunders, C., Wilcox, W. and Savoy, P. (2021). Modeling restored Everglades flow to anticipate increasing control of natural wetland features on water depth and storage after levees are removed. *GEER 2021 Conference Abstract Book.* p. 36.
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- 24. **Sah, J. P.**, Ross, M. S., Vidales, R., Stoffella, S. and Pulido, C. (2020). Soil and vegetation characteristics along hydrologic gradient in marl- and peat- dominated wetlands in Everglades, Florida. *International Symposium on Soil C and N Dynamics by Land Use, Management and Climate Changes, Yamagata University, Japan. Abstract Book.* pg. 3.
- 25. Nocentini, A., Kominoski, J., **Sah, J. P.** and Ross, M. S. (2020). Comparing biogeochemical legacies of fire and hydrology in short- and long-hydroperiod wetlands. *The 105<sup>th</sup> ESA Annual Meeting Abstracts.* # COS 107-Wetlands 1.
- 26. Ross, M. S., Scinto, L. J., Stoffella, S., Vidales, R., Meeder, J. F. and **Sah, J. P.** (2019). Tree islands of Florida's dynamic southern coastal plain. *NAFEW-2019 Abstract Book*. pg. 95.
- 27. Stoffella, S. L., Ross, M. S. and **Sah, J. P.** (2019). An experimental assessment of neighborhood interference on Everglades' tree species growth and survival along a flooding gradient in constructed tree islands. *GEER* 2019 Conference-Abstract Book. pg. 282.
- 28. Scinto, L. J., Dessu, S., Price, R. M., Ross, M. S., **Sah, J. P.,** Sullivan, P. L., Serna, A., Stoffella, S., L., Cline, E., Dreschel, T. W. and Sklar, F. H. (2019). Developing a mechanistic understanding of tree islands: Lessons learned from nearly a decade of studying an Everglades physical model. *GEER 2019 Conference-Abstract Book.* pg. 262.
- 29. Sandoval, J., Sah, J., Stoffella, S. and Ross, M. S. (2019). Increased tree mortality within tree islands post-hurricane disturbance. *GEER 2019 Conference-Abstract Book*. pg. 256.
- 30. **Sah, J. P.,** Ross, M. S., Ruiz, P. L., Stoffella, S., Subedi, S. and Sandoval, J. (2019). Overstory-understory interactions along flooding gradients in Everglades tree islands. *GEER 2019 Conference-Abstract Book*. pg. 255.
- 31. Ross, M. S., Scinto, L. J., Stoffella, S., VIdales, R., Meeder, J. F. and **Sah, J. P.** (2019). Tenacious tree islands of Florida's southern coastal swamp. *GEER 2019 Conference-Abstract Book*. pg. 253.
- 32. Pulido, C., **Sah, J.**, Ross, M., Stoffella, S. and Ruiz, P. (2019). Distribution of woody vegetation in the short-hydroperiod marl prairie grasslands. GEER 2019 Conference-Abstract Book. pg. 241.

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#### I. Technical Reports:

- 1. Sah, J. P., Ross, M. S., Stoffella, S., Constant, B., Ramos, S. and Castaneda, S. (2024). Status of Vegetation structure and composition within the habitat of Cape Sable seaside sparrow Subpopulation D-2024. Annual Report submitted to South Florida Water Management District (SFWMD), West Palm Beach, FL. December 2024. 41 pp.
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- 3. **Sah, J. P.,** Rugemalila, D., Heffernan, J. B., Ross, M. S., Castaneda, S., Constant, B., Stoffella, S., and Castrillon, K. (2023). Landscape Pattern- Ridge, Slough, and Tree Island Mosaics. Cycle-3, Year-3 Report (2020-2023) submitted to US Army Engineer Research and Development Center. May 2024. 65 pp.
- 4. **Sah, J. P.,** Ross, M. S., Stoffella, S., Constant, B., Pulido, C., Castaneda, S. and Alvarez, J. (2024). Monitoring of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable Seaside Sparrow Habitat in Everglades National Park. Annual Report Year 2 (2022/2023). Submitted to U.S. Army ERDC, Vicksburg, MS. April 2024. pp 73.
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- 29. Ross, M. S., Stoffella, S., Meeder, J., Scinto, L., Vidales, R., Biswas, H., Charles, S., Wachnicka, A. and **Sah, J. P.** (2019). Ecosystem dynamics in the White Zone: history, drivers, and restoration implications. Annual Report (2018-2019) submitted to South Florida Natural Resources Center, Everglades & Dry Tortugas National Parks. Homestead, FL. October 2019. pp 103.
- 30. **Sah, J. P.,** Snyder, J. R., Ross, M. S., Stoffella, S., Vidales, R., Pulido, C. and Sandoval, J. (2019). Evaluation of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable Seaside Sparrow Habitat, Everglades National Park, Florida/Re-sampling of vegetation survey sites within Cape Sable seaside sparrow habitat. Annual (Year 2) Report submitted to U.S. Army ERDC, Vicksburg, MS) and South Florida Natural Resources Center, Everglades & Dry Tortugas National Parks. Homestead, FL. 2019. pp 50.
- 31. **Sah, J. P.**, Heffernan, J. B., Ross, M. S., Isherwood, E. and Castrillon, K. (2019). Landscape Pattern- Ridge, Slough, and Tree Island Mosaics. Annual Report Year 3 (2015-2018) submitted to US Army Engineer Research and Development Center. 49 pp.
- 32. **Sah, J. P.,** Gann, D., Ross, M. S., Sandoval, J., Mesa, X., Olivas, P., and Stoffella, S. (2019). Monitoring of Tree Island Condition in the Southern Everglades. Annual Report Year 4 (2014-2018) submitted to US Army Engineer Research and Development Center. 64 pp.
- 33. **Sah, J. P.,** Gann, D., Ross, M. S., Jirout, A., Olivas, P., Mesa, X. and Sandoval, J. (2018). Monitoring of Tree Island Condition in the Southern Everglades. Annual Report Year 2-3 (2015-2017) submitted to US Army Engineer Research and Development Center. 89 pp.
- 34. **Sah, J. P.**, Ross, M. S., Stoffella, S. and Vidales, R. (2018). Landscape Pattern Marl Prairie/Slough Gradient: patterns and trends in Shark Slough marshes and associated marl prairies. Annual Report Year 4 (2014-2018) submitted to US Army Engineer Research and Development Center. Dec 31, 2018. 59 pp.
- 35. **Sah, J. P.,** Ross, M. S., Snyder, J. R., Stoffella, S., Pulido, C., Sandoval, J., and Jirout, A. (2018). Evaluation of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable Seaside Sparrow Habitat, Everglades National Park, Florida/ Re-sampling of vegetation survey sites within Cape Sable seaside sparrow habitat. Annual (Year 1) Report submitted to U.S. Army ERDC, Vicksburg, MS and South Florida Natural Resources Center, Everglades & Dry Tortugas National Parks. Homestead, FL. 2018. pp 43.
- 36. **Sah, J. P.**, Pulido, C., Stoffella, S. and Ross, M. S. (2018). Status of Vegetation structure and composition within the habitat of Cape Sable seaside sparrow Subpopulation D-2018. Annual Report submitted to South Florida Water Management District (SFWMD), West Palm Beach, FL. September 2018. 29 pp.
- 37. Ross, M. S., Meeder, J., Scinto, L., **Sah, J. P.,** Stoffella, S., Biswas, H. and Charles, S. (2018). Ecosystem dynamics in the White Zone: history, drivers, and restoration implications. 2<sup>nd</sup> Annual Report submitted to South Florida Natural Resources Center, Everglades & Dry Tortugas National Parks. Homestead, FL. April 2018. pp 102.
- 38. **Sah, J. P.**, Ross, M. S., Stoffella, S., Martinez-Held, A. and Jirout, A. (2017). Landscape Pattern Marl Prairie/Slough Gradient: patterns and trends in Shark Slough marshes and associated marl prairies. Annual Report Year 3 (2016-2017) submitted to US Army Engineer Research and Development Center. Dec 30, 2017. 51 pp.

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- 40. **Sah, J. P.,** Ross, M. S., Snyder, J. R., Stoffella, S., Jirout, A., Vidales, R. and Blanco, J. (2017). Re-sampling of vegetation survey sites within Cape Sable seaside sparrow habitat. Final Report submitted to South Florida Natural Resources Center, Everglades & Dry Tortugas National Parks. Homestead, FL. Cooperative Agreement # H5000-10-0104. Feb 2017. pp 40.
- 41. Ross, M. S., Meeder, J., Wachnicka, A., Scinto, L., **Sah, J. P.,** Stoffella, S., Ogurcak, D., Vidales, R. and Charles, S. (2016). Ecosystem dynamics in the White Zone: history, drivers, and restoration implications. Annual Report submitted to South Florida Natural Resources Center, Everglades & Dry Tortugas National Parks. Homestead, FL. Jan 2017. pp 50.
- 42. **Sah, J. P.,** Jirout, A., Stoffella, S., Ross, M. S. (2016). Status of Vegetation structure and composition within the habitat of Cape Sable seaside sparrow Subpopulation D-2016. Annual Report submitted to South Florida Water Management District (SFWMD), West Palm Beach, FL. Sept 30, 2016. 27 pp.
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- 44. **Sah, J. P.,** Ross, M. S., Snyder, J. R., Stoffella, S., Blanco, J. and Freixa, J. (2015). Re-sampling of vegetation survey sites within Cape Sable seaside sparrow habitat. Report submitted to South Florida Natural Resources Center, Everglades & Dry Tortugas National Parks. Homestead, FL. April 2016. pp 53.
- 45. **Sah. J. P.**, Ross, M. S., Blanco, J., and Freixa, J. (2015). Evaluation of WDAT vs EDEN Water Surface Elevation data for studying vegetation: hydrology relationship in the southern Everglades. Report submitted to US Army Corps of Engineers. August 2015. pp 31.
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- 48. **Sah, J. P.**, Ross, M. S. and Ruiz, P. L. (2015). Landscape Pattern Marl Prairie/Slough Gradient Annual Report 2013 submitted to US Army Engineer Research and Development Center, Vicksburg, MS. 2015. 26 pp.
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- 54. Ruiz, P. L., Ross, M. S. and **Sah, J. P.** (2013). Monitoring of Tree Island Condition in the Southern Everglades: Hydrologic Driven Decadal Changes in Tree Island Woody Vegetation Structure and Composition. 2012 Annual Report submitted to US Army Engineer Research and Development Center, Vicksburg, MS. March 1, 2013. 41 pp.
- 55. Ruiz, P. L., **Sah, J. P.**, Snyder, J. R. and Ross, M. S. (2012). Mapping and assessing fire damage on broadleaved forest communities in Big Cypress National Preserve. Submitted to US Geological Survey. USGS Cooperative Agreement # G11AC20030. Sept 11, 2012. 16 pp.
- 56. **Sah, J. P.**, Ross, M. S., Ruiz, P. L. and Subedi, S. (2012). Monitoring of Tree Island Condition in the Southern Everglades. Annual Report-2011 submitted to US Army Engineer Research and Development Center. March 23, 2012. 72 pp.
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- 58. Virzi, T., Davis, M. J., **Sah, J. P.**, Ross, M. S. and Ruiz, P. L. (2011). C-111 Project & Cape Sable seaside sparrow subpopulation D: Baseline data on sparrows, vegetation and hydrology Annual Report-2011. Submitted to the South Florida Water Management District. 80 pp.
- 59. **Sah, J. P.**, Ross, M. S., Ruiz, P. L., Snyder, J. R., Rodriguez, D. and Hilton, W. T. (2011). Cape Sable seaside sparrow habitat Monitoring and Assessment 2010. Final Report submitted to U. S. Army Corps of Engineers, Jacksonville, FL. April. 2011. 57 pp.
- 60. Ruiz, P. L., Sah, J. P., Ross, M. S., Rodriguez, D., and Lambert, A. (2011). Monitoring of Tree Island Conditions in the Southern Everglades: The Effects of Hurricanes and Hydrology on the Status and Population Dynamics of Sixteen Tropical Hardwood Hammock Tree Islands. US Army Engineer Research & Development Center. 136 pp.
- 61. King, R. T., **Sah, J. P.**, Ross, M. S. and Ruiz, P. L. (2010). Marl Prairie/Slough Gradients: Patterns and Trends in Shark Slough and Adjacent Marl Prairies. 2010 Annual Report. (CERP Monitoring Activity 3.1.3.5. Oct 22, 2010. 27 pp.
- 62. **Sah, J. P.**, Ross, M. S. and Stoffella, S. (2010). Developing a Data-driven Classification of South Florida Plant Communities. Final Report submitted to National Park Service: South Florida Caribbean Network (NPS/SFCN). April 2010. 114 pp.
- 63. Ruiz, P. L., Ross, M. S. and **Sah, J. P.** (2010). A Geospatial Database of Tree Islands within the Mustang Corner Fire Incident of 2008. Final Report submitted to Everglades National Park, Homestead, FL. March 2010. 15 pp.
- 64. **Sah, J. P.**, Snyder, J. R., Ross, M. S. and Ogurcak, D. E. (2010). Re-sampling of Permanent Pine Rockland Vegetation Plots on Big Pine Key. Final Report submitted to U. S. Fish & Wildlife Service, Feb 2010. 110 pp (49 text & figures + 61page appendices)
- 65. **Sah, J. P.**, Ross, M. S. Snyder, J. R., Ruiz, P. L., Stoffella, S., Colbert, N., Hanan, E., Lopez, L., and Camp, M. (2010). Cape Sable seaside sparrow habitat Vegetation Monitoring. FY 2009 Final Report submitted to U. S. Army Corps of Engineers, Jacksonville, FL. Jan. 2010. 50 pp.
- 66. Kline, M., Ross, M. S., Ruiz, P. L., **Sah, J. P.**, Colbert, N., Lopez, L. and Heinrich, J. (2010). Marl Prairie/Slough Gradients: Patterns and Trends in Shark Slough and Adjacent Marl Prairies. 2009 Annual Report submitted to U. S. Army Corps of Engineers, Jacksonville. Jan 2010. 15 pp.
- 67. Heffernan, J. B., Ross, M. S., Cohen, M. J., Osborne, T.Z., **Sah, J. P.**, Ruiz, P. L. and Scinto, L. J. (2009). The Monitoring and Assessment Plan (MAP) Greater Everglades Wetlands Module Landscape Pattern Ridge, Slough, and Tree Island Mosaics. FY 2009 (Year-1) Annual Report submitted to South Florida Water Management District, West Palm Beach, FL. Sept 2009. 51 pp.
- 68. Stoffella, S., Ross, M. S., **Sah, J. P.**, Ruiz, P. L., et al. (2009). Estimating Biomass Production of Tree Species Growing Along Hydrologic Gradient on LILA Tree Islands. Report submitted to

- South Florida Water Management District, West Palm Beach, FL. (PO # 4500031465). Aug 2009. 12 pp.
- 69. Engel, V., Renshaw, A., Ross, M. S., **Sah, J. P.**, Coronado, C., Mellein, J. (2009). Tree Island Composition, Elevation, and Hydrologic Tolerances of the Dominant Species: Implications for the Decomp Physical Model. Annex-2, Section 2 Supporting document. In: Sklar F. et al. The Deomp Physical Model Science Plan. SFWMD, West Palm Beach, FL. 17 pp.
- 70. **Sah, J. P.**, Ross, M. S., Minchin, P., Saha, S., et al. (2009). Landscape pattern Marl prairie/Slough gradients. A report submitted to Vic Engel, Everglades National Park, Homestead, FL. 17 pp. (The materials were included in 2009 MAP System Status Report).
- 71. Hanan, E., Ross, M. S., **Sah, J. P.**, Ruiz, P. L., Stoffella, S., et al. (2009). Woody Plant Invasion into the Freshwater Marl Prairie Habitat of the Cape Sable seaside sparrow. A final report submitted to US Fish and Wildlife Services. Feb 19, 2009. 61 pp.
- 72. Kline, M. Ross, M. S., Ruiz, P. L., **Sah, J. P.**, Colbert, N., Lopez, L. and Heinrich, J. (2009). Marl Prairie/Slough Gradients; patterns and trends in Shark Slough and adjacent marl prairies. CERP monitoring activity 3.1.3.5. 2009 Annual Report, Jan 2009. 14 pp.
- 73. **Sah, J. P.**, Ross, M. S., Snyder, J. R., Ruiz, P. L., Stoffella, S., et al. (2009). Cape Sable seaside sparrow habitat Vegetation Monitoring. FY 2008 Final Report submitted to U. S. Army Corps of Engineers, Jacksonville, FL. Jan. 2009. 52 pp.
- 74. **Sah, J. P.**, Ross, M. S., Snyder, J. R. Ruiz, P. L., Stoffella, S., et al. (2008). Effect of Hydrologic Restoration on the Habitat of the Cape Sable seaside sparrow. 2006-2007. Year-5 (2006-2007) Final Report submitted to U. S. Army Corps of Engineers, Jacksonville, FL. May 2008. 47 pp.
- 75. Kline, M. Ross, M. S., Ruiz, P. L., Shamblin, B., **Sah, J. P.**, Hanan, E., and Stoffella, S. (2007). Marl Prairie/Slough Gradients; patterns and trends in Shark Slough and adjacent marl prairies. CERP monitoring activity 3.1.3.5. Third (2007) Annual Report. Dec 31, 2007. 26 pp.
- 76. **Sah, J. P.**, Ross, M. S., Snyder, J. R. Ruiz, P. L., Jones, D. T. et al. (2007). Effect of Hydrologic Restoration on the Habitat of the Cape Sable seaside sparrow. Year-4 (2005-2006) Annual Report submitted to U. S. Army Corps of Engineers, Jacksonville, FL. March 2007. 49 pp.
- 77. Espinar, J., Ross, M., Oberbauer, S., Ruiz, P., Gomez, D., Wang, X., Sternberg, L., Saha, A., Sah, J. P. et al. (2007). Tree Islands in Everglades Landscapes: Current Status, Historical Changes, and Hydrologic Impacts on Population Dynamics and Moisture Relations. Second (2006) Annual Report. Jan 29, 2007. 52 pp.
- 78. Ruiz, P. L., Kline, M. **Sah, J. P.**, Jones, D. T., Hanan, E., Stoffella, S. and Ross, M. S., (2006). Marl Prairie/Slough Gradients; patterns and trends in Shark Slough and adjacent marl prairies. CERP monitoring activity 3.1.3.5. Second (2006) Annual Report. Dec 31, 2006. 23 pp.
- 79. Chaudhary, R. P., **Sah, J. P.**, Panthi, M. P. and Bhattarai, S. (2006). Effect of Grazing on an Invasive Species, *Mikania micrantha* H. B. Kunth, in Koshi Tappu Wildlife Reserve: A Case Study. Final Report, submitted to IUCN Asia Regional Office, Bangkok, Thailand. Dec 8, 2006. 44 pp.
- 80. Ross, M. S., **Sah, J. P.**, Snyder, J. R. Ruiz, P. L., Jones, D. T., Colley, H., et al. (2006). Effect of Hydrologic Restoration on the Habitat of the Cape Sable seaside sparrow. Year-3 (2004-2005) Annual Report submitted to Everglades National Park, Homestead, FL and U. S. Army Corps of Engineers, Jacksonville, FL. March 2006. 46 pp.
- 81. Ross, M. S., Ruiz, P. L., **Sah, J. P.**, Stoffella, S. Timilsina, N., and Hanan, E. (2006). Marl Prairie/Slough Gradients; patterns and trends in Shark Slough and adjacent marl prairies. CERP monitoring activity 3.1.3.5. First Annual (2005) Report, Jan 16, 2006. 25 pp.
- 82. Ross, M., Oberbauer, S., Ruiz, P., Timilsina, N., Gomez, D., **Sah, J.**, Stoffella, S. and Sternberg, L. (2005). Tree Islands in Everglades Landscapes: Current Status, Historical Changes, and Hydrologic Impacts on Population Dynamics and Moisture Relations. First Annual Report (2005). SERC, Florida International University, Miami, FL. December 30, 2005. 22 pp.
- 83. Snyder, J. R., Ross, M. S., Koptur, S., **Sah. J. P.** (2005). Developing Ecological Criteria for Prescribed Fire in South Florida Pine Rockland Ecosystems. Final Report. Interagency Agreement

- between USGS and Bureau of Land Management. USGS Open File Report OF: 2006-1062. July 2005. 109 pp.
- 84. Ross, M. S., **Sah, J. P.**, Snyder, J. R., Ruiz, P. L., Jones, D. T., Colley, H., et al. (2004). Effect of Hydrologic Restoration on the Habitat of the Cape Sable seaside sparrow. Year-2 (2003-2004) Annual Report submitted to Everglades National Park, Homestead, FL and U. S. Army Corps of Engineers, Jacksonville, FL. November 2004. 36 pp.
- 85. Ross, M. S., Jones, D.T., Chmura, G.L., Cooley, H.C., Hwang, B., Jayachandran, K., Oberbauer, S. F., Reed, D. L., Ruiz, P. L., **Sah, J. P.**, Sah, S., Stockman, D., Stone, P.A., and Walters. J. (2004). Tree islands in the Shark Slough landscape: interactions of vegetation, hydrology, and soils. Final Report to Everglades National Park, EVER 00075. Sept 2004. 196 pp.
- 86. Ross, M. S., **Sah, J. P.**, Armentano, T. V., Jones, D. T., Cooley H. C. and Smith, C. S. (2003). Vegetation Dynamics in ENP Marshes, with Emphasis on Taylor Slough. IOP Report to Everglades National Park. October 2, 2003. 31 pp.
- 87. Ross, M. S., **Sah, J. P.**, Snyder, J. R. Ruiz, P. L., Jones, D. T., Colley, H., et al. (2003). Effect of hydrologic restoration on the habitat of the Cape Sable seaside sparrow. Year-1(2002-2003) Annual Report, submitted to Everglades National Park, Homestead, FL and U. S. Army Corps of Engineers, Jacksonville, FL. June 2003. 35 pp.
- 88. Ross, M. S. Meeder, J. F., Gaiser, E. E., Ruiz, P. L., **Sah, J. P.**, Reed, D. L. et al. (2003). The L-31E Surface Water Re-diversion Pilot Project Final Report: Implementation, Results, and Recommendations. Report to South Florida Water Management District (SFWMD Contract C-12409). May 1, 2003. 114 pp.
- 89. Ross, M. S., Ruiz, P. L., Reed, D. L., Jayachandran, K., Coultas, C. L., **Sah, J. P.** and Lewin, M. T. (2001). Assessment of Marsh Vegetation Responses to Hydrological Restoration in Shark Slough, Everglades National Park. Final Report (Cooperative Agreement 5280-9021). June 27, 2001. 102 pp.
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- 91. **Sah, J. P.** (1998). Ghodaghodi Lake Area: A Unique Ecosystem. Report submitted to IUCN-Nepal. May 1998. 67 pp.
- 92. Ross, M. S., Meeder, J. F., **Sah, J. P.**, Herndon, A. Ruiz, P. L. and Telesnicki, G. J. (1997). Windthrow in South Florida Pine Rocklands: Pit-and-Mound Features and Plant Microhabitat Associations Following Hurricane Andrew Report to Everglades National Park. July 15, 1997.
- 93. Meeder, J. F., Ross, M. S., Telesnicki, G., Ruiz, P. L. and **Sah. J. P.** (1996). Vegetation Analysis in the C-111/Taylor Slough Basin. November 1996. 103 pp.

#### 9. Presentations

# A. Conferences/Workshops/Meetings/Invited Seminars:

- 1. Sah, J. P. et al. (2024). Fire and flooding interactions and their effects on vegetation trajectories in marl- and peat- dominated wetlands in Everglades, Florida, USA. Society of Wetland Scientists (SWS) Meeting-2024. Taipei, Taiwan. Nov 11-16, 2024.
- 2. **Sah, J. P.** et al. (2024). *Cape Sable seaside sparrow Habitat within Taylor Slough Basin: Hydrology and Vegetation Dynamics*. Invited talk at Upper Taylor Slough Annual Meeting. September 18, 2024.
- 3. Sah, J. P. et al. (2024). *Marl Prairie Landscape as the Cape Sable seaside sparrow Habitat: Hydrology, Fire and Vegetation Dynamics*. Invited talk at Everglades Ecosystem-based Management Dry Season Meeting (On-line). January 30, 2024.

- 4. **Sah, J. P.,** Pulido, C., Ross, M. S., et al. (2023). *Effects of hydrologic changes on vegetation and soil characteristics along marl prairie-Slough gradients in Everglades, Florida*. The Ecological Society of America (ESA) 108th Annual Meeting, August 6-11, 2023.
- 5. **Sah, J. P.,** Ross, M. S., Snyder, J. R., et al. (2023). *Long-tern vegetation dynamics in Cape Sable seaside sparrow habitat: Lessons learned and implications for Everglades restoration*. GEER-2023, Coral Springs, FL. April 17-20, 2023.
- 6. **Sah, J. P.,** Ross, M. S., Stoffella, S. L., et al. (2022). *Marl Prairie Landscape as the Cape Sable seaside sparrow Habitat: Hydrology, Fire and Vegetation Dynamics.* Invited talk at Everglades Ecosystem-based Management 2022 Dry Seasonal Meeting (On-line). December 13, 2022.
- 7. **Sah, J. P.,** Ross, M. S., Stoffella, S. L., and Pulido, C. (2022). *Hydrologic changes and vegetation dynamics along marl prairie-slough gradients in southern Everglades*. Invited talk at RECOVER Monthly Meeting (On-line). November 17, 2022.
- 8. Sah, J. P. (2022). Effects of increasing hydroperiods on vegetation and soil nutrients in Everglades wetlands. LTER Network All Scientists' Meeting 2022. Pacific Grove, CA. Sept 19-23, 2022.
- 9. **Sah, J. P.,** Ross, M. S., Stoffella, S. L., and Heffernan, J. (2022). *Spatial variation in microtopography and vegetation composition within the Everglades ridge and slough landscape*. Invited talk at RECOVER Meeting Regional Coordinators, Executive Committee, and Leadership Group (On-line). January 20, 2022.
- 10. **Sah, J. P.,** Ross, M. S., Stoffella, S. L. et al. (2021). *Marl Prairie Landscape as the Cape Sable seaside sparrow Habitat: Hydrology, Fire and Vegetation Dynamics*. Invited talk at Everglades Ecosystem-based Management October Seasonal Meeting Part I (On-line). November 8, 2021.
- 11. **Sah, J. P.** (2021). Spatial variation in microtopography and vegetation composition within the Everglades ridge and slough landscape. Invited talk at Everglades Ecosystem-based Management October Seasonal Meeting Part I (On-line). November 8, 2021.
- 12. **Sah, J. P.** (2021). Wetland restoration and enhancement of biodiversity and ecosystem services: challenges and opportunities The 7th International Symposium on Wetlands Environmental Management (7th ISWEM), Lambung Mangkurat University. Banjarmasin, Indonesia (Online), Oct. 25-26, 2021.
- 13. **Sah, J. P.,** Ross, M. S., Stoffella, S., L., Ruiz, P. L. and Mesa, X. (2021). *Overstory-understory relationships along flooding gradients in Everglades tree islands*. The Ecological Society of America (ESA) 106<sup>th</sup> Annual Meeting (Fully Virtual), August 2-6, 2021.
- 14. **Sah, J. P.,** Isherwood, E., Heffernan, J., Ross, M. S. (2021). *Spatial structure in species composition within the Everglades ridge and slough landscape: Present condition and restoration challenges.* SWS Annual Meeting 2021 (Virtual Meeting), June 1-10, 2021.
- 15. **Sah, J. P.,** Richards, J. H., Ross, M. S., et al. (2021). Presented the paper: *Incident light and flooding combine to determine understory plant composition in an experimental Everglades tree island.* GEER -2021 (Virtual Meeting), April 22-29, 2021.
- 16. **Sah, J. P.** (2020). Marl prairie landscape as an endangered species habitat: the pivot of water management activities and wetland restoration in Everglades, Florida, USA. The 6<sup>th</sup> International Symposium on Wetlands Environmental Management (6<sup>th</sup> ISWEM), Lambung Mangkurat University. Banjarmasin, Indonesia (Online). Nov. 30 Dec 1, 2020.
- 17. **Sah, J. P.**, Ross, M. S., Vidales, R., et al. (2020). *Soil and vegetation characteristics along hydrologic gradient in marl- and peat- dominated wetlands in Everglades, Florida*. International Online Symposium on Soil C and N Dynamics by Land Use, Management and Climate Changes. Yamagata University, Japan. September 28-29, 2020.
- 18. **Sah, J. P.,** Ross, M. S., Stoffella, S., L., et al. (2020). *Marl Prairie Landscape as the Cape Sable seaside sparrow Habitat: Hydrology, Fire and Vegetation Dynamics*. Invited talk at Inter-agency Cape Sable seaside sparrow (CSSS) Group meeting (Online). September 25, 2020.

- 19. **Sah, J. P.,** Ross, M. S., Ruiz, P. L., Stoffella, S., Subedi, S. and Sandoval, J. (2019). *Overstory-understory interactions along flooding gradients in Everglades tree islands*. GEER-2019, Coral Springs, FL. April 22-25, 2019.
- 20. Sah, J. P. (2019). Quantifying Spatio-temporal changes in Plant Communities along Environmental Gradients and their implications for ecosystem management. Invited Seminar at Central Department of Botany, Tribhuvan University, Kirtipur, Kathmandu, Nepal. March 19, 2019.
- 21. **Sah, J. P.,** Ross, M. S. and Heffernan, J. B. (2018). *Spatial structure in species composition within the Everglades ridge and slough landscape*. The 61<sup>st</sup> International Association of Vegetation Science (IAVS) Symposium 2018, Bozeman, MT, USA. July 22-27, 2018.
- 22. **Sah, J. P.,** Ross, M. S., Stoffella, S. L., Snyder, J. R., and Ruiz, P. L. (2017). *Marl Prairie Landscape as Cape Sable seaside sparrow habitat the pivot of water management activities in southern Everglades*. Biology Department, University of Miami, Miami, Fl. Oct 09, 2017.
- 23. **Sah, J. P.,** Ross, M. S., Pearlstine, L. G. and Ruiz, P. L. (2017). *Spatio-temporal pattern in plant communities along hydrology gradient in Everglades Tree Islands*. 11<sup>th</sup> North American Forest Ecology Workshop (NAFEW 2017), Edmonton, AB, Canada. June 18-22, 2017.
- 24. **Sah, J. P.,** Ross, M. S., Stoffella, S. L. et al. (2017). *Vegetation dynamics along hydrologic gradient in marl- and peat- dominated wetlands in Everglades, Florida*. Society of Wetland Scientists (SWS) Annual Meeting-2017. San Juan, Puerto Rico. June 5-8, 2017.
- 25. **Sah, J. P.,** Ross, M. S., Snyder, J. R., et al. (2017). *Marl Prairie landscape as the Cape Sable seaside sparrow habitat: the pivot of hydrologic restoration in southern Everglades*. GEER 2017, Coral Springs, FL. April 17-20, 2017.
- 26. **Sah, J. P.** (2016). Shifting paradigm of Ecosystem Management: Vegetation dynamics and ecosystem management along hydrologic gradient in marl- and peat- dominated wetlands in Everglades, Florida. 3<sup>rd</sup> International Conference on 'Emerging Trends in Academic Research' (ETAR-2016). Organized by Global Illuminators sponsored by Lambung Mangkurat University. Banjarmasin, Indonesia. Sept. 26-17, 2016.
- 27. **Sah, J. P.**, Bernhardt, C. E., Ross, M. S., Sternberg, L., and Willard, D. A. (2016). *Hydrologic conditions and vegetation dynamics inferred from carbon isotopic signature of soil organic matter in the marl prairie landscape, Everglades, Florida*. The Ecological Society of America (ESA) 101<sup>st</sup> Annual Meeting. Fort Lauderdale, FL, USA. August 7-12, 2016.
- 28. **Sah, J. P.**, Ross, M. S., Heffernan, J. B. and Ruiz, P. L. (2016). *Recent hydrologically-driven vegetation succession in Shark River Slough, the southern compartment of the Everglades ridge and slough landscape*. National Conference on Ecosystem Restoration: Ecosystem Restoration in Action (NCER 2016). Coral Springs, FL. April 18-22, 2016.
- 29. **Sah, J. P.**, Ross, M. S., and Ruiz. P. L. (2015). *Hydrologic driven short-term vegetation successional dynamics in Shark River Slough, Everglades National Park, Florida*. GEER 2015 Conference. Coral Springs, FL. April 21-23, 2015.
- 30. **Sah, J. P.** Ross, M. S., Snyder, J., Minchin, P. et al. (2015). *Fire and Flooding Interactions: Vegetation Trajectories in the Southern Everglades Marl Prairies, Florida*. South Florida Natural Resources Center (SFNRC), Everglades National Park, Homestead, FL. March 4, 2015.
- 31. **Sah, J. P.** Ross, M. S. and Heffernan, J. B. (2015). *Monitoring of Everglades marl prairie and ridge-slough-tree island landscapes*. RECOVER (Everglades: Restoration Coordination & Verification) Science Meeting. West Palm Beach, FL, USA. Jan 21-23, 2015.
- 32. **Sah, J. P.** and Ross, M. S. (2014). *Cape Sable seaside sparrow sub-population D habitat: vegetation dynamics an overview.* South Florida Water Management District (SFWMD), West Palm Beach, FL. October 22, 2014.
- 33. Sah, J. P., Ross, M. S., Richards, J. H., et al. (2014). Assessing the effects of forest canopy cover on understory vegetation composition and biomass along an experimental hydrological gradient. The Ecological Society of America (ESA) 99th Annual Meeting. Sacramento, CA, USA. August 10-15, 2014.

- 34. Sah, J. P., Ross, M. S., and Ruiz, P. L. (2013). Spatio-temporal Pattern in Plant Communities along Hydrology Gradient in Shark Slough Tree Islands, Everglades National Park, Florida. Society of Wetland Scientists (SWS) Annual Meeting-2013. Duluth, MN, USA. June 2-6, 2013.
- 35. **Sah, J. P.** (2013). *The changing face of plant communities in floodplains of the Himalayan foothills and the Everglades*. Department of Earth & Environment Environmental Studies Seminar, Florida International University, Miami, FL. Feb 27, 2013.
- 36. **Sah, J. P.**, Ross, M. S., Ruiz, P. L. and Synder, J. (2012). *Marl Prairie Vegetation: What do we know? What's next?* 2012 Cape Sable seaside sparrow Symposium. Everglades National Park, Homestead, FL. December 11, 2012.
- 37. **Sah, J. P.** et al. (2012. *Fire and flooding interactions: Vegetation trajectories in the southern Everglades Marl Prairies, FL, USA*. 9<sup>th</sup> INTECOL: International Wetlands Conference Wetlands in a Complex World. Orlando, FL. June 3-8, 2012.
- 38. **Sah, J. P.** Ross, M. S., Ruiz, P. L. (2011). *C111 Spreader Canal Project and CSSS sub-population D habitat: interplay of hydrology and fire*. 2011 Cape Sable seaside sparrow Symposium. Everglades National Park, Homestead, FL. December 6, 2011.
- 39. **Sah, J. P.** Ross, M. S., Ruiz, P. L, et al. (2011). *Linking vegetation dynamics to hydrologic changes in the southern Everglades marl prairies*. The Ecological Society of America (ESA) 96th Annual Meeting. Austin, TX, USA. August 7-12, 2011.
- 40. **Sah, J. P.** and Ross, M. S. (2011). Assessing understory vegetation composition along an experimental hydrological gradient in the developing forests on tree islands. 8th North American Forest Ecology Workshop, Roanoke, VA, USA. June 19-23, 2011.
- 41. **Sah, J. P.** et al. 2011. *Vegetation dynamics in marl prairies and interplay of hydrology and fire and its implications on Everglades Restoration*. Southeast Environmental Research Center (SERC) Seminar, FIU. March 9, 2011.
- 42. **Sah, J. P.** Ross, M. S., Ruiz, P. L., et al. 2010. *Cape Sable seaside sparrow habitat: incipient effects of retention areas on vegetation with and without fire*. 2010 Cape Sable seaside sparrow Symposium. Everglades National Park, Homestead, FL. Dec 7, 2010.
- 43. **Sah, J. P.** (2010). The changing face of endangered species habitat management challenges in Himalayan foothill floodplains and the Everglades wetlands. Water, Wetlands and Watershed Seminar, University of Florida, Gainesville, FL. Nov 10, 2010.
- 44. **Sah, J. P.** Ross, M. S., Ruiz, P. L., Stoffella, S. L. et al. (2010). *Changing Cape Sable seaside sparrow habitat conditions in marl prairie landscape and their implications for Everglades restoration*. GEER-2010 Conference. Naples, FL. July 12-16, 2010.
- 45. **Sah, J. P.** Ross, M. S., Lopez, L. et al. (2010). *Understory vegetation composition and biomass on the tree islands in the Loxahatchee impoundment landscape assessment (LILA) experimental site*. GEER-2010 Conference. Naples, FL. July 12-16, 2010.
- 46. **Sah, J. P.** et al. (2010). *Tree mortality following prescribed fire and a storm surge event in the Florida Keys pine forests*. Pine Rockland Conference 2010. Miami, FL. Feb 10-12, 2010.
- 47. **Sah, J. P.,** Ross, M. S., Ruiz, P. L. and Snyder, J. R. (2009). *Cape Sable seaside sparrow habitat: hydrology, fire, and vegetation change* (2005-2009). 2009 Cape Sable seaside sparrow Symposium. Everglades National Park, Homestead, FL. Dec 8, 2009.
- 48. **Sah, J. P.**, Ross, M. S., Snyder, J. R. and Ruiz, P. L. (2009). *Effect of post-fire hydrology on vegetation dynamics in southern Everglades marl prairie*. 4<sup>th</sup> International Fire Ecology and Management Congress, Savannah, GA, USA. Nov 30 Dec 5, 2009.
- 49. **Sah, J. P.**, Ross, M. S., Ogurcak, D. and Snyder, J. R. (2009). *Fuel loads, fire severity, and tree mortality in Florida Keys pine forests*. 7<sup>th</sup> North American Forest Ecology Workshop, Logan, UT. June 22-26, 2009.
- 50. **Sah, J. P.** et al. (2009). Developing a Data-driven Classification of South Florida Plant Communities Data Acquisition, and classification of herbaceous vegetation. Plant Biologists of South Florida Meeting. April 5, 2009. Corkscrew Swamp Sanctuary, Naples, FL.

- 51. **Sah, J. P.** et al. (2008). *Cape Sable seaside sparrow habitat: hydrology, fire, and vegetation change.* 2008 Cape Sable seaside sparrow Symposium. Everglades National Park, Homestead, FL. Dec 2-3, 2008.
- 52. Sah, J. P., Ross, M. S., Stoffella, S. and Atkinson, A. (2008). Developing a Data-driven Classification of South Florida Plant Communities Data Acquisition and Management, and classification of herbaceous vegetation. GEER-2008 Conference, Naples, FL. July 28-August 1, 2008.
- 53. **Sah, J. P.** et al. (2008). Results of 7 years (1999-2005) of prescribed fire in Everglades National Park pinelands. Pine Rockland Conference, Miami, FL, USA & Andros, Bahamas. February 28-March 1, 2008.
- 54. **Sah, J. P.** et al. (2007). *Cape Sable seaside sparrow habitat: hydrology, fire, and vegetation change* (2004-2007). 2007 Cape Sable seaside sparrow Symposium. Everglades National Park, Homestead, FL. Dec 4-5, 2007.
- 55. **Sah, J. P.** et al. (2007). Vegetation dynamics in Southern Everglades Marl Prairies and their implications on Cape Sable seaside sparrow. Everglades Avian Ecology Workshop-2007. Sanctioned by South Florida Ecosystem Restoration Task Force and organized by Sustainable Ecosystems Institute. Florida International University, Miami, Fl. August 13-14, 2007.
- 56. Sah, J. P., Ross, M. S., Snyder, J. R., Ruiz, P. L. and Jones, D. T. (2007). Relationship between species richness and biomass along a hydrologic gradient in the marl prairie landscape in the southern Everglades, Florida, USA. The Ecological Society of America (ESA) 92nd Annual Meeting. San Jose, CA, USA. August 5-10, 2007.
- 57. **Sah, J. P.** et al. (2007). Lesson learned in protected areas: A case study in Koshi Tappu Wildlife Reserve, Nepal grazing and invasive species Mikania micrantha. Ecosystem, Protected Areas, and People Workshop. Organized by IUCN The World Conservation Union, Asia Regional Office. Bangkok, Thailand. June 12-15, 2007.
- 58. **Sah, J. P.** et al. (2007). *Vegetation Dynamics in Southern Everglades Prairies in Recent Years: Causes and Implications*. Workshop on the Regime Shift in Southern Prairie Ecosystems. Everglades National Park, Homestead. April 30 May 1, 2007.
- 59. **Sah, J. P.** et al. (2006). *Cape Sable seaside sparrow census sites revisited: assessment of vegetation change in three years*. 2006 Cape Sable seaside sparrow Symposium. Everglades National Park, Homestead, FL. Dec 5-6, 2006.
- 60. **Sah, J. P.** et al. (2006). Assessing the interactions between fire and hydrology on marl prairie vegetation in the southern Everglades, Florida, USA. 3<sup>rd</sup> International Fire Ecology and Management Congress, San Diego, CA, USA. November 13-17, 2006.
- 61. **Sah, J. P.** et al. (2006). *Issuing annual permits for harvesting thatch grass as compensation to local people in Nepal: does this policy have effects on conservation attitude?* First Himalayan Policy Research Conference, Madison, WI, USA. October 19, 2006.
- 62. Sah, J. P., Ross, M. S., Snyder, J. R., et al. (2006). Vegetation-environment relationships and their implications for Cape Sable seaside sparrow populations in Everglades Marl Prairies. GEER-2006, Buena Vista Palace, Orlando, FL. June 5-9, 2006.
- 63. **Sah, J. P.** et al. (2006). *Fuel loads, fire regimes and post-fire fuel dynamics in Florida Keys pine forests.* Pine Rockland Conference 2006, Miami, FL, USA & Abaco, Bahamas. February 8-12, 2006.
- 64. **Sah, J. P.** and Heinen, J. (2006). *Issuing annual permits for harvesting thatch grass as compensation to local people in Nepal: does this policy have effects on conservation attitude?* Department of Environmental Studies Seminar, FIU, Miami, FL. Fall 2006.
- 65. **Sah, J. P.** et al. (2005). *The habitat of Cape Sable seaside sparrow: vegetation-environment relationships*. 2005 Cape Sable seaside sparrow Symposium: Fire management strategies of occupied CSSS habitat. Everglades National Park, Homestead, FL. Dec 6-7, 2005.

- 66. **Sah, J. P.** et al. (2005). *Vegetation dynamics and its implications for Cape Sable seaside sparrow populations in Everglades marl prairies*. Society of Wetland Scientists (SWS) 26<sup>th</sup> Annual Meeting, Charleston, SC, USA. June 5-10, 2005.
- 67. **Sah, J. P.** et al. (2005). *Vegetation dynamics and Cape Sable seaside sparrow populations in the marl prairie landscape*. Florida Coastal Everglades (FCE)-LTER All Scientists Meeting. March 25-26, 2005. Fairchild Tropical Botanic Garden, Coral Gables, FL, USA.
- 68. **Sah, J. P.** et al. (2004). *Vegetation-environment relationships in the habitat of Cape Sable seaside sparrow in the Everglades, USA*. 47th Annual Meeting of the International Association of Vegetation Science, Kailua-Kona, Hawai'i, USA. July 18-23, 2004.
- 69. **Sah, J. P.** et al. (2004). *The habitat of the Cape Sable seaside sparrow: vegetation-environment relationships*. Southeast Environmental Research Center (SERC) Brown Bag Seminar, Florida International University, Miami, FL. April 14, 2004.
- 70. **Sah, J. P.** et al. (2004). *Fuel loads and their implications for fire management in Florida Keys pine forests*. Pineland Workshop, Miami, FL. Feb 2-3, 2004.
- 71. **Sah, J. P.** et al. (2003). *Vegetation dynamics in ENP marshes with emphasis on Taylor Slough*. Department of Environmental Studies Seminar, Florida International University, Miami, FL. Nov. 5, 2003.
- 72. **Sah, J.,** Ross, M., Reed, D., Ruiz, P., Jones, D. (2003). *Vegetation structure and composition along hydrologic gradients in Everglades Tree Islands*. The Ecological Society of America (ESA) 88th Annual Meeting, Savannah, GA, USA. August 3-8, 2003.
- 73. **Sah, J. P.**, Ross, M. S., Koptur, S., Borg, C., Liu, H., Snyder, J. (2003). *Fuel loads in the understory of Florida Keys pine forests along a chronosequence of time since last fire*. Joint Conference on the Science and Restoration of the Greater Everglades and Florida Bay Ecosystem: From Kissimmee to the Keys. Palm Harbor, FL. USA. April 13-18, 2003.
- 74. **Sah, J. P.** et al. (2002). *Biomass and fuel loads associated with hardwoods in the understory of Florida Keys pine forests*. 29th Natural Areas Association (NAA) Conference, Asheville, NC, USA. Oct. 2-5, 2002.
- 75. **Sah, J. P.** et al. (2002). *Vegetation-environment relationships on the floodplains of the Mahakali River, Nepal*. Biology Research Symposium. Organized by Tropical Biology Program at Fairchild Botanical Garden, Miami, FL, USA. Jan 18, 2002.
- 76. **Sah, J. P.** et al. (2001). Effects of burning and grazing on floral composition, plant diversity and biomass production in Imperata-Vetiveria dominated grasslands in Nepal. Natural Areas Association (NAA) Conference, Cape Canaveral, FL, USA. Oct 3-6, 2001.
- 77. **Sah, J. P.** et al. (2001). *Effects of anthropogenic disturbances on community structure and biomass production in seasonally flooded grasslands in Nepal*. Biology Research Symposium. Organized by Tropical Biology Program at Florida International University, Miami, FL, USA. Feb. 2, 2001.
- 78. **Sah, J. P.** et al. (2000). *Participatory approach to wetland management in Nepal: A case study in Ghodaghodi Lake Area*. Quebec 2000: Millennium Wetland Event/INTECOL VI International Wetland Symposium, Quebec City, Canada. Aug. 6-12, 2000.
- 79. Sah, J. P., Sah S. K., Acharya P., Pant D. and Lance, V. A. (1999). Assessment of Water pollution in the Narayani River, Nepal. International Conference on Tropical Aquatic Ecosystems: Health, Management and Conservation. Jointly organized by Aquatic Ecosystems Health and Management Society, Canada, National Institute of Ecology, India and International Limnological Society, Netherlands at Nainital, India. Oct. 25-30, 1999.
- 80. **Sah, J. P.** (1999). *Koshi Tappu's treasure: wetlands or grasslands*. Workshop on Grassland Ecology and Management in the Protected Areas of Nepal. Jointly organized by Department of National Parks and Wildlife Reserve (DNPWC), WWF-Nepal and ICIMOD at Royal Bardia National Park, March 15-18, 1999.
- 81. Sah, J. P., Yadav, R. P., et al. (1999). Wetlands in Royal Shuklaphanta Wildlife Reserve and their importance in grassland management. Workshop on Grassland Ecology and Management in the

- Protected Areas of Nepal. Jointly organized by Department of National Parks and Wildlife Reserve (DNPWC), WWF-Nepal and ICIMOD at Royal Bardia National Park, March 15-18, 1999.
- 82. Sah, S. K., Sah, J. P. and Lance, V. (1998). *Industrial effluents and their use in agriculture along the Narayani River in Nawalparasi District, Nepal.* International Conference on Environment and Agriculture. Organized by Ecological Society at Kathmandu, Nepal. Nov. 1-3, 1998.
- 83. **Sah, J. P.,** Singh, R. L. and Bhatta, N. (1998). *Vegetation study in the abandoned agricultural fields of Shuklaphanta Wildlife Reserve*. International Conference on Environment and Agriculture. Organized by Ecological Society at Kathmandu, Nepal. Nov. 1-3, 1998.
- 84. **Sah, J. P.** et al. (1998). Wetlands in Shuklaphanta Wildlife Reserve, Nepal: present status and management issues. International Conference on Asian Wetlands. Organized by Indian Environmental Society at New Delhi, India. Jan 29-31, 1998.
- 85. **Sah, J. P.** (1997). *Ghodaghodi Lake system: a unique ecosystem in the lowlands of Nepal.* Workshop on Wetland Conservation and Management (Ghodaghodi Tal). Jointly Organized by Natural History Society of Nepal and IUCN-Nepal at Kathmandu. Dec 15-17, 1997.
- 86. **Sah, J. P.**, Chaudhary, R. P., et al. (1995). *Study on Ecology and Ethnobotany of Legumes in Parsa, Nepal*. Second International Seminar cum Workshop on the Design and Establishment of Computerized Database of Legumes of South Asia. Jointly Organized by NBRI, Lucknow, India and Central Department of Botany, T. U., Kathmandu, Nepal. April May 1-3, 1995.
- 87. **Sah, J. P.** and Saeed, K. (1994). *Wetland vegetation and its management in Koshi Tappu, Nepal: a system dynamic approach.* International Conference on System Dynamics. University of Stirling, Scotland, UK. July 11-15, 1994.
- 88. **Sah, J. P.** and Suselo, T. B. (1994). *A Study on Vegetation Dynamics in Koshi Tappu, Nepal.* Second National Conference on Science and Technology, Organized by Royal Nepal Academy of Science and Technology (RONAST), Kathmandu, Nepal. June 8-11, 1994.
- 89. **Sah, J. P.** and Suselo, T. B. (1994). *The shifting of the Koshi river and its Impact on land use change in Nepal*. Regional Conference on Environment and Biodiversity, Organized by Ecological Society (ECOS), Kathmandu. March 7-9, 1994.
- 90. **Sah, J. P.** (1993). Role of Wetlands in Sustainable Agriculture in Nepal with Reference to Koshi Tappu Region. International Workshop on Sustainable Agriculture, Organized by Natural Resources Program, AIT, Bangkok. Dec 14-17, 1993.
- 91. **Sah, J. P.**, Jha, P. K., and Chettri, M. K. (1991). *Assessment of Grain Amaranth Productivity in Nepal*. International Botanical Conference, Organized by Bangladesh Botanical Society, Dhaka. Jan. 10-12, 1991.
- 92. **Sah, J. P.**, Acharya, S. K. and Shreshtha, K. K. (1991). *Study of the members of Fagaceae on Phulchoki Hill, Nepal*. International Botanical Conference, Organized by Bangladesh Botanical Society, Dhaka. Jan. 10-12, 1991.
- 93. Jha, P. K., **Sah, J. P.** and Chettri, M. K. (1988). *A Study on the productivity of Amaranthus hypochondriacus L*. First Regional Conference of the Association of Plant Physiologists of SAARC Countries (APPSC) on the Role of Plant Physiology and Biotechnology on Plant Productivity. Kathmandu, Nepal. Oct. 2-7, 1988.
- 94. **Sah, J. P.** (1987). *Lyonia ovalifolia: A threatened species of Nepal*. First Asian School on Conservation Biology, Banglore, India. Dec. 16-31, 1987.

# **B.** Guest Lectures:

1. **Sah, J. P.** (2020). Marl prairie landscape as the Cape Sable seaside sparrow habitat: the pivot of water management activities in southern Everglades. Department of Earth & Environment - Professional Science Masters - Environmental Policy and Management (PSM-EPM), FIU, Miami, FL. March 7, 2020.

- 2. **Sah, J. P.** (2018). Abundance, Diversity and Rarity in Plant communities along environmental gradients in Everglades. In BOT 4601/BOT 5605: General Plant Ecology/ Plant Ecology- 2018 Fall Semester (Instructor Dr. Suzane Koptur), FIU, Miami, FL. Nov 1, 2018.
- 3. **Sah, J. P.** (2015). Marl Prairies: Cape Sable seaside sparrow habitat Ecology & Management. Department of Earth & Environment Professional Science Masters Environmental Policy and Management (PSM-EPM), FIU, Miami, FL. Sept 12, 2015.
- 4. **Sah, J. P.** (2014). Southern Everglades marl prairies: ecology and management. In EVR-4594: Analysis of South Florida Ecosystems- 2014 Spring Semester (Instructor Dr. Michael Ross), FIU, Miami, FL. Feb 20, 2014.
- 5. **Sah J. P.** (2013). South Florida Pine Forests: Ecology and Management. In EVR-4594: Analysis of South Florida Ecosystems- 2013 Spring Semester (Instructor Dr. Michael Ross), FIU, Miami, FL. Feb 12, 2013.
- 6. **Sah J. P.** (2012). Southern Everglades marl prairies: ecology and management. In EVR-4594: Analysis of South Florida Ecosystems- 2012 Spring Semester (Instructor Dr. Michael Ross), FIU, Miami, FL. Feb 21, 2012.
- 7. **Sah, J. P.** et al. (2010). Developing a Data-driven Classification of South Florida Plant communities Data Acquisition and Management, and classification of herbaceous vegetation. Plant Talk. Department of Biological Sciences, FIU, Miami, FL. Feb 17, 2010.
- 8. **Sah, J. P.** (2010). Fire: a disturbance? In EVR-4594: Analysis of South Florida Ecosystems- 2010 Spring Semester (Instructor Dr. Michael Ross), FIU, Miami, FL. Feb 10, 2010.
- 9. **Sah, J. P.** (2007). Floodplain ecology and management. In EVR-5320: Environmental Resource Management-2007Spring Semester (Instructor Dr. Michael Ross), FIU, Miami, FL. Feb 27, 2007.
- 10. **Sah, J. P.** (2007). Resource use pattern and people's attitude: do they really matter in participatory approach to protected area management? In EVR-5360: Protected Area Management -2007 Spring Semester (Instructor Dr. Joel Heinen). FIU, Miami, FL. Feb 6, 2007.
- 11. **Sah, J. P.** (1996). GIS approach to the natural resource management in Nepal: a case study in Koshi Tappu Region Geographic Information System (GIS) Seminar. FIU GIS group at Florida International University, Miami, USA. Aug. 16, 1996.

# **10. Research Funding** (PI or Co-PI) (*Total \$10.44 M of which* \$6.03 M as PI & \$4.41 M as Co-PI) **2024**

- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. **\$118,490** (Continuation: Year-5 (Option Year-4)). 09/24/2024 09/23/2025. Total funding in 5 years (2020-2025): \$561,033.69. **PI** with Mike Ross (Co-PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC. \$132,00. (New: Year-1) Current Project Period: 09/18/2024 09/17/2025. Potentially, a five-year (2024-2029) project with total funding of \$667,700. PI with Mike Ross (Co-PI) and Daniel Gann (Co-PI).
- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$132,00.** (New: Year-1) Current Project Period: 09/18/2024 09/17/2025. Potentially, a five-year (2024-2029) project with total funding of \$693,300. **PI** with Mike Ross (Co-PI).
- Developing hydrological criteria for Everglades tree island condition in ETree, Funded by USGS.
   \$53,016. (New: Year-1: 2024-2025). Potentially, a two-year (2024-2026) project with total funding of \$106,200. Co-PI with Michael Ross (PI).
- Modeling future vegetation communities under Everglades Restoration scenarios ELVES. Funded by NPS/ENP. \$119,976. (New: Year-1) Current Project Period: 09/01/2024 08/31/2025. Potentially, a two-year (2024-2027) project with total funding of \$239,952. PI with Deus Rugemalila (Postdoc & Co-PI)

- Tree island response to hydrologic and fire regime changes in Northeast Shark River Slough, Everglades National Park. Funded by NPS/ENP. **\$129,353** (New: Year-1) Current Project Period: 08/12/2024 06/30/2025. Potentially, three-year (2024-2027) project with total funding of \$388,059). **PI** with Daniel Gann (Co-PI).
- Evaluation of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable Seaside Sparrow Habitat, Everglades National Park, Florida. Funded by NPS/ENP. \$105,415 (Continuation: Year-3). 09/15/2024-09/14/2025. Potentially, a five-year (2022-2027) project. PI with Mike Ross (Co PI).
- Loxahatchee Impoundment Landscape Assessment (LILA) Tree Island, Ridge, and Slough Studies. Funded by South Florida Water Management District (SFWMD). **\$93,000** (New: Year-1: 2024-2025). Potentially, a three-year (2024-2026) project with total funding of \$279,000. **Co-PI** with Michael Ross (PI).
- Monitoring of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable Seaside Sparrow Habitat in Everglades National Park. Funded by USACE/ERDC. \$137,946 (Continuation: Year-3 (Option Year-2)). 04/12/2024- 04/11/2025. Potentially, a five-year project (2022-2027). PI with Mike Ross (Co-PI).
- Status of vegetation structure and composition within the habitat of Cape Sable seaside sparrow subpopulation D. Funded by SFWMD. \$38,040 + Helicopter support. (New for One Year). 01/01/2024 12/31/2024. PI with Mike Ross (Co-PI).
- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. \$22,713 (Supplementary Funding). 09/24/2023 09/23/2024. PI with Mike Ross (Co-PI).
- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$22,713** (Supplementary Funding). 09/18/2023 09/17/2024. Total funding in 5 years (2019-2024): \$572.367. **PI** with Mike Ross (Co-PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC.
   \$22,713 (Supplementary Funding). 09/18/2023 09/17/2024. Total funding in 5 years (2019-2024): \$557,016. PI with Mike Ross (Co-PI) & Daniel Gann (Co-PI).

- Evaluation of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable Seaside Sparrow Habitat, Everglades National Park, Florida. Funded by NPS/ENP. \$102,995 (Continuation: Year-2). 09/15/2023-09/14/2024. Potentially, a five-year (2022-2027) project. PI with Mike Ross (Co PI).
- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. **\$113,684** (Continuation: Year-4 (Option Year-3)). 09/24/2023 09/23/2024. Potentially, a five-year (2020-2025) project. **PI** with Mike Ross (Co-PI).
- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$111,722** (Continuation: Year-5 (Option Year-4)). 09/18/2023 09/17/2024. Total funding in 5 years (2019-2024): \$549.654. **PI** with Mike Ross (Co-PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC. **\$107,665** (Continuation; Year-5 (Option Year-4)). 09/18/2023 09/17/2024. Total funding in 5 years (2019-2024): \$534,303. **PI** with Mike Ross (Co-PI) & Daniel Gann (Co-PI).
- Monitoring of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable Seaside Sparrow Habitat in Everglades National Park. Funded by USACE/ERDC. \$134,885 (Continuation: Year-2 (Option Year-1)). 04/12/2023- 04/11/2024. Potentially, a five-year project (2022-2027). PI with Mike Ross (Co-PI).

#### 2022

Evaluation of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable Seaside Sparrow Habitat, Everglades National Park, Florida. Funded by NPS/ENP. \$100,000 (New: Year-1). 09/15/2022-09/14/2023. Potentially, a five-year (2022-2027) project: PI with Mike Ross (Co PI).

- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. **\$108,728** (Continuation: Year-3 (Option Year-2)). 09/24/2022 09/23/2023. **PI** with Mike Ross (Co-PI).
- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$130,624** (Continuation: Year-4 (Option Year-3)). 09/18/2022 09/17/2023. **PI** with Mike Ross (Co-PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE. \$131,141 (Continuation: Year-4 (Option Year-3)). 09/18/2022 09/17/2023. PI with Mike Ross (Co-PI) & Daniel Gann (Co-PI).
- Monitoring of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable seaside sparrow Habitat in Everglades National Park. Funded by USACE/ERDC. \$125,000 (New: Year-1 (Base Year)). 04/12/2022- 04/11/2023. Potentially, a five-year (2022 2027) project. PI with Mike Ross (Co-PI).

- Status of vegetation structure and composition within the habitat of Cape Sable seaside sparrow subpopulation D. Funded by SFWMD. \$39,925. (New for One Year). 12/22/2021 12/30/2022. **PI** with Mike Ross (Co-PI).
- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC.
   \$105,729 (Continuation: Year-2 (Option Year-1)). 09/24/2021 09/23/2022. PI with Mike Ross (Co-PI).
- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$107,604** (Continuation: Year-3 (Option Year-2)). 09/18/2021 09/17/2022. **PI** with Mike Ross (Co-PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC.
   \$102,890\_(Continuation: Year-3 (Option Year-2)). 09/18/2021 09/17/2022. PI with Mike Ross (Co-PI) & Daniel Gann (Co-PI).
- Loxahatchee Impoundment Landscape Assessment (LILA) Tree Island, Ridge, and Slough Studies. Funded by South Florida Water Management District (SFWMD). **\$231,000** (New: Three-year project): 10/01/2020 09/30/2023. **Co-PI** with Rene Price (PI), Len Scinto (PI) and Michael Ross (Co-PI).
- Evaluation of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable Seaside Sparrow Habitat, Everglades National Park, Florida. Funded by USACE/ERDC. **\$125,000** (Continuation: Year-5 (Option Year-4)). 02/17/2021 to 02/20/2022. Total funding in five (2017-2022) years-\$625,000: **PI** with Michael Ross (Co-PI).

#### 2020

- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC.
   \$91,690 CA# W912HZ-20-2-0038. (New: Year-1 (Base Year)). Current Project period: 09/24/2020-09/23/2021. Potentially a five-year (2015-2020) project. PI with Mike Ross (Co-PI).
- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$103,423** (Continuation: Year-2 (Option Year-1)). 09/18/2020 09/17/2021. **PI** with Mike Ross (Co-PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC.
   \$99,940\_(Continuation: Year-2 (Option Year-1)). 09/18/2020 09/17/2021. PI with Mike Ross (Co-PI) & Daniel Gann (Co-PI).
- Hurricane Irma effects on Florida Everglades Mangroves: Assessment of Resilience and Trajectories of Recovery, Funded by NPS/ENP. \$337,238 for two years (06/01/2020 05/31/2022). Co-PI with Edward Castaneda (PI), Tiffany Troxler (Co-PI), and John Kominoski (Co-PI).
- Vegetation study within the current and adjoining potential habitat of Cape Sable seaside sparrow in the southern Everglades. Funded by NPS/ENP. \$68,715 (+ helicopter service for fieldwork). (Continuation: Year-5). 09/01/2020-12/31/2021. Total amount in five years (2016-2021) \$437,317 (+ \$62,683 in helicopter service for two years). PI with Mike Ross (Co PI).
- Evaluation of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable

Seaside Sparrow Habitat, Everglades National Park, Florida. Funded by USACE/ERDC. **\$125,000** (Continuation: Year-4 (Option Year-3)). 02/17/2020 - 02/20/2021. **PI** with Michael Ross (Co-PI).

#### 2019

- Status of vegetation structure and composition within the habitat of Cape Sable seaside sparrow subpopulation D. Funded by SFWMD. **\$39,140.** (New for One Year). 12/06/2019 09/30/2020. **PI** with Mike Ross (Co-PI).
- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$96,281**. CA# W912HZ1920031 (New: Year-1 (Base Year)). Current Project period: 09/18/2019 09/17/2020. Potentially, a five-year (2019-2024) project. **PI** with Mike Ross (Co-PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC. **\$92,667.** CA# W912HZ1920032 (New: Year 1 (Base Year)). 09/18/2019 09/17/2020. Potentially, a five-year (2019-2024) project. **PI** with Mike Ross (Co-PI) & Daniel Gann (Co-PI).
- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. **\$91,690** (Continuation: Year-5 (Option Year-4)). 09/15/2019 09/14/2020. Total funding in five years (2015-2020): \$457,760. **PI** with Mike Ross (Co-PI).
- Vegetation study within the current and adjoining potential habitat of Cape Sable seaside sparrow in the southern Everglades. Funded by NPS/ENP. **\$68,602** (+ \$32,850 in helicopter service for field work) (Continuation: Year-3). 09/01/2019-08/31/2020. **PI** with Mike Ross (Co PI).
- Evaluation of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable Seaside Sparrow Habitat, Everglades National Park, Florida. Funded by USACE/ERDC. \$125,000 (Continuation: Year-3 (Option Year-2)). 02/22/2019 to 02/21/2020. PI with Michael Ross (Co-PI).

#### 2018

- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. **\$91,690** (Continuation: Year 4 (Option Year 3)). 09/15/2018 09/14/2019. **PI** with Mike Ross (Co-PI).
- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$96,280** (Continuation: Year-5 (Option Year-4)). 09/18/2018 09/17/2019. Total funding in five years (2014-2019): \$505,653. **PI** with Mike Ross (Co-PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by U USACE. **\$92,468** (Continuation: Year-5 (Option Year-4)). 09/18/2018 09/17/2019. Total funding for five years (2014-2019) \$466,908. **PI** with Mike Ross (Co-PI) & Daniel Gann (Co-PI).
- Vegetation study within the current and adjoining potential habitat of Cape Sable seaside sparrow in the southern Everglades. Funded by Funded by NPS/ENP. **\$100,000** (Continuation: Year-3). 09/01/2018-08/31/2019. **PI** with Mike Ross (Co PI).
- Ecosystem dynamics in the White Zone: history, drivers, and restoration implications. Funded by Everglades National Park (ENP), Homestead, FL. **\$20,000** (Continuation: Year-3). 11/05/2018-09/30/2019. Total amount in three (2016-2019) years \$274,623. **Co-PI** with Mike Ross (PI), Len Scinto (Co-PI) and John F. Meeder (Co-PI).
- Post-storm habitat assessment of pine rocklands at National Key Deer Refuge. Funded by USFWS \$75,788. Award # F18AC00088. (New for 2 years). Project Period: 10/01/2017–12/31/2019. Co-PI with Michael Ross (PI), Danielle Ogurcak (Co-PI), Rene Price (Co-PI), Dean Whitman (Co-PI) and Keqi Chang (Co-PI).
- Evaluation of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable Seaside Sparrow Habitat, Everglades National Park, Florida. Funded by USACE/ERDC. \$125,000 (Continuation: Year-2 (Option Year-1)). 02/22/2018 to 02/21/2019. PI with Michael Ross (Co-PI).

#### 2017

• Status of vegetation structure and composition within the habitat of Cape Sable seaside sparrow subpopulation D. Funded by SFWMD. \$38,000. (New for One Year). 01/10/2018 – 09/30/2018. PI with Mike Ross (Co-PI).

- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$96,280** (Continuation: Year- 4 (Option Year-3)). 09/18/2017 09/17/2018. **PI** with Mike Ross (Co-PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC.
   \$92,468 (Continuation: Year- 4 (Option Year-3)). 09/18/2017 09/17/2018. PI with Mike Ross (Co-PI) & Daniel Gann (Co-PI).
- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. **\$91,690**. (Continuation: Year-3 (Option Year-2)). 09/15/2017 09/14/2018. **PI** with Mike Ross (Co-PI).
- LILA Tree Island, Ridge, and Slough Studies. Funded by SFWMD. PO # 9500007401. **\$324,903** (For three years: 11/01/2017 09/30/2020). **Co-PI** with Len Scinto (PI), Rene Price (Co-PI) and Michael Ross (Co-PI).
- Ecosystem dynamics in the White Zone: history, drivers, and restoration implications. Funded by NPS/ENP. **\$121,970** (Continuation: Year-2). 11/05/2017-11/04/2018. **Co-PI** with Mike Ross (PI), Len Scinto (Co-PI) and John F. Meeder (Co-PI).
- Vegetation study within the current and adjoining potential habitat of Cape Sable seaside sparrow in the southern Everglades. Funded by NPS/ENP. **\$100,000** (Continuation: Year-2). 09/01/2017-08/31/2018. **PI** with Mike Ross (Co PI).
- Simulation of vegetation dynamics in the Marl prairie landscape using the Everglades Vegetation Succession Model (ELVeS). Funded by NPS/ENP. **\$162,750**. (New for Two years). 02/15/2017 12/31/2018. **PI** with Mike Ross (Co PI).
- Evaluation of Vegetation Response to Changes in Hydrologic Parameters within Cape Sable Seaside Sparrow Habitat, Everglades National Park, Florida. Funded by USACE/ERDC. \$125,000.
   New: Base Year. Current project period: 02/22/2017 to 02/21/2018. Potentially, a five-year (2017-2022) project. PI with Michael Ross (Co-PI).

- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$96,280** (Continuation: Year-3 (Option Year-2)). 09/18/2016 09/17/2017. **PI** with Mike Ross (Co-PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC.
   \$92,667 (Continuation: Year-3 (Option Year-2)). 09/18/2016 09/17/2017. PI with Mike Ross (Co-PI) & Daniel Gann (Co-PI).
- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. **\$91,690** (Continuation: Year-2 (Option Year-1)). 09/15/2016 09/14/2017. **PI** with Mike Ross (Co-PI).
- Ecosystem dynamics in the White Zone: history, drivers, and restoration implications. Funded by NPS/ENP. Award # P15AC01625/P16AC01727. \$132,653. (New: Year-1). Current Project period: 11/05/2016-11/04/2017. Potentially, a three-year project. Co-PI with Mike Ross (PI), Len Scinto (Co-PI) and John F. Meeder (Co-PI).
- Vegetation study within the current and adjoining potential habitat of Cape Sable seaside sparrow in the southern Everglades. Funded by NPS/ENP. Award # P16AC01534. \$100,000. (New: Year-1). Current project period: 09/01/2016-08/31/2019. Potentially, a five-year (2016-2021) project. PI with Mike Ross (Co PI).
- From Arboreal to Benthic Communities: the ABCs of Land to Ocean Biodiversity Observations. Funded under NASA solicitation NNH15ZDA001N-BIO (ROSES-2015) to Dr. Erin Hestir (PI), North Carolina State University. A sub-contract to FIU. \$23,479. 08/11/2016 08/10/2018. Co-PI with Evelyn Gaiser (PI).

#### 2015

- Status of vegetation structure and composition within the habitat of Cape Sable seaside sparrow subpopulation D. Funded by SFWMD. \$38,000. (New for One Year). 12/15/2015 09/30/2016. PI with Mike Ross (Co-PI).
- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$116,281** (Continuation: Year-2 (Option Year-1)). 09/18/2015 09/17/2016. **PI** with Mike Ross (Co-PI).

- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC.
   \$92,667. (Continuation: Year-2 (Option Year-1)). 09/18/2015 09/17/2016. PI with Mike Ross (Co-PI) & Daniel Gann (Co-PI).
- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. **\$91,000**. (New: Year-1 (Base year)). Current Project period: 09/22/2015 09/15/2016. Potentially, a five-year (2015-2020) project. **PI** with Mike Ross (Co-PI).
- Evaluation of WDAT vs EDEN Water Surface Elevation data for studying vegetation: hydrology relationship in the Marl Prairie landscape of the Southern Everglades. USACE/ERDC. \$4,532 (an increase in CA# W912HZ-14-2-0023). 06/09/2015 09/30/2015. PI with Mike Ross (Co-PI)
- Evaluation of WDAT vs EDEN Water Surface Elevation Data for Studying Vegetation: hydrology relationship in tree islands in the southern Everglades. USACE/ERDC. \$4,638 (an increase in CA# W912HZ-14-2-0022). 06/09/2015 09/30/2015. **PI** with Mike Ross (Co-PI)
- Vegetation study within the current and adjoining potential habitat of Cape Sable seaside sparrow in the Southern Everglades. Funded by NPS/ENP. **\$100,000.** (*New:* One Year project). 09/01/2015 08/31/2016. **PI** with Mike Ross (Co PI).
- Ecosystem Dynamics in the White Zone: History, Divers, and Restoration Implications. Funded by NPS/ENP. **\$102,575.** Project period: 11/05/2015 11/04/2016. **Co-PI** with Mike Ross (PI), Anna Wachnicka (Co-PI), Len Scinto (Co-PI) and John F. Meeder (Co-PI).

- Status of vegetation structure and composition within the habitat of Cape Sable seaside sparrow subpopulation D. Funded by SFWMD. \$38,000. (New for One Year). 01/2014 09/30/2014. PI with Mike Ross (Co-PI).
- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$96,000.** CA# W912HZ-14-2-0023. (New: Year-1 (Base Year)). Current project period: 09/18/2014 09/17/2015. Potentially, a five-year (2014-2019) project. **PI** with Mike Ross (Co-PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC. \$92,000. CA# W912HZ-14-2-0022. (New: Year-1 (Base Year)). Current project period: 09/18/2014 09/17/2015. Potentially, a five-year (2014-2019) project. PI with Mike Ross (Co-PI) & Daniel Gann (Co-PI).
- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. **\$91,691**. (Continuation: Year-5 (Option Year-4)): 11/01/2014 08/02/2015. Total amount in five (2010-2015) years: \$693,408. **Co-PI** with Mike Ross (PI).

#### 2013

- Re-sampling of vegetation within the habitat of Cape Sable seaside sparrow. Funded by NPS/ENP. Award # P13AC01271. \$66,087. (New: One year). 08/28/2013 07/31/2014. PI with Mike Ross (Co-PI).
- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$96,281** (Continuation: Year-5 (Option Year-4)). 09/01/2013 08/30/2014. Total amount in five (2009-2014) years: \$549,241. **Co-PI** with Mike Ross (PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC. **\$92,667**\_(Continuation: Year-5 (Option Year-4)). 09/01/2013 08/30/2014. Total amount in five (2009-2014) years: \$625,359. **Co-PI** with Mike Ross (PI) and Steve Oberbauer (Co-PI).
- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. **\$91,691**. (Continuation: Year-4 (Option Year-3)). 07/31/2013- 09/30/2014. **Co-PI** with Mike Ross (PI).

#### 2012

- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$96,281** (Continuation: Year-4 (Option Year-3)). 07/01/2012 06/30/2013. **Co-PI** with Mike Ross (PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC.
   \$92,667. (Continuation: Year-4 (Option Year-3)). 07/01/2012 06/30/2013. Co-PI with Mike Ross (PI) and Steve Oberbauer (Co-PI).

• Landscape Pattern – Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. **\$90,975**. (Continuation: Year-3 (Option Year-2)). 08/06/2012- 07/30/2013. **Co-PI** with Mike Ross (PI).

#### 2011

- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$122,812** (Continuation: Year-3 (Option Year-2)). 07/01/2011 06/30/2012. **Co-PI** with Mike Ross (PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC. \$157,115 (Continuation: Year-3 (Option Year-2)). 07/01/2011 06/30/2012. Co-PI with Mike Ross (PI) and Steve Oberbauer (Co-PI).
- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. (Continuation: Year-2 (Option Year-1)). 08/01/2010 –09/30/2012. **Co-PI** with Mike Ross (PI after change in PI), Jim Heffernan (Co-PI), and Len Scinto (Co-PI).
- Carbon Isotopic Signature in the Soil Organic Matter in Marl Prairie Soil Cores in the Everglades. Funded by USGS. **\$28,000**. (Continuation: Year-2). 04/01/2010 03/31/2011. **PI** with Mike Ross.
- Assessing the Impact of Deep Fire on Hardwood Hammocks in Big Cypress National Preserve. Funded by USGS. Award # G11AC20030. \$18,000. (New for One Year). 03/01/2011 to 02/29/2012. PI with Mike Ross (Co-PI).
- Vascular Plant Community Composition and Distribution in Cape Sable seaside sparrow Subpopulation D. Funded by SFWMD. Award # 4500058454. (New for 6 months). \$38,531 (+ \$22,575 in form of helicopter support). 04/01/2011 to 09/30/2011. Co-PI with Mike Ross (PI).

#### 2010

- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$118,910** (Continuation: Year-2 (Option Year-1)). 07/012010 06/30/2011. **Co-PI** with Mike Ross (PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE. **\$150,660** (Continuation: Year-2 (Option Year-1)). 07/012010 06/30/2011. **Co-PI** with Mike Ross (PI) and Steve Oberbauer (Co-PI).
- Cape Sable seaside sparrow Habitat Monitoring and Assessment 2010. Funded by USACE. \$157,707. 05/01/2010 04/30/2011. Co-PI with Mike Ross (PI).
- Landscape Pattern Ridge, Slough, and Tree Island Mosaics. Funded by USACE/ERDC. \$206,622. CA # W912HZ-10-2-0030. (New: Year-1 (Base Year)). 08/03/2010 07/31/2011. Potentially, a five-year project. Co-PI with Jim Heffernan (PI), Mike Ross (Co-PI), and Len Scinto (Co-PI).
- Carbon Isotopic Signature in the Soil Organic Matter in Marl Prairie Soil Cores in the Everglades. Funded by U.S. Geological Survey (USGS), Reston, VA. Award # G10AC00234. \$16,445. (New: Year-1). 04/01/2010 03/31/2011. Potentially a two-year (2010-2012) project. PI with Mike Ross. 2009
- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by USACE/ERDC. **\$114,957.** CA # W912HZ-09-2-0018. (New: Year-1 (Base Year)). 08/01/2009 09/30/2010 (Potentially a five-year project). **Co-PI** with Mike Ross (PI).
- Monitoring of Tree Island Condition in the Southern Everglades. Funded by USACE/ERDC. \$132,250. CA # W912HZ-09-2-0019. (New: Year-1 (Base Year)). 08/01/2009 09/30/2010. Potentially a five-year (2009-2014) project. Co-PI with Mike Ross (PI) and Steve Oberbauer (Co-PI).
- Cape Sable seaside sparrow Habitat Monitoring and Assessment 2009. Funded by USACE. \$192,162. 04/01/2009 01/31/2010. Co-PI with Mike Ross (PI) and James Snyder (Co-PI).
- Landscape pattern ridge, slough, and tree island mosaic. Funded MAP-RECOVER, SFWMD. **\$191,355.** 06/01/2009 09/30/2009. **Co-PI** with Dr. Jim Heffernan (PI), Dr. Mike Ross (Co-PI) and Len Scinto (Co-PI), from FIU, and Dr. Matt Cohen (Co-PI), Todd Osborne (Co-PI) from UF.

#### 2008

• Cape Sable seaside sparrow Habitat Monitoring and Assessment – 2008. Funded by USACE. \$136,872. 05/09/2008 – 03/31/2009. Co-PI with Mike Ross (PI) and James Snyder (Co-PI).

- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by Everglades National Park (ENP). \$73,658. 03/26/2008 12/31/2008. Co-PI with Mike Ross (PI).
- Landscape Pattern: Marl Prairie/Slough Gradients. Funded by SFWMD. **\$49,750.** 01/31/2008–09/30/2008. **Co-PI** with Mike Ross (PI).
- Estimating Biomass Production and Nutrient Concentrations of Tree Species Growing Along Hydrologic Gradient on LILA Tree Islands. Funded by SFWMD. \$40,000. (New: for One Year). 11/18/2008–09/30/2009. Co-PI, with Mike Ross (PI)
- Data Analysis Toward Development of a Tree Island Succession Model and Performance Measure. Funded by NPS/ENP. **\$13,855** (additional funding through modification in CA# H5297050027). 03/01/2008 06/30/2008. **Co-PI** with Mike Ross (PI) and Steve Oberbauer (PI).

 Developing Allometric Biomass Equation for Saplings of Tree Species Common in Everglades Tree Islands. Funded by South Florida Water Management District (SFWMD), \$48,750. (New: for One Year). 06/01/2007-09/30/2008. Co-PI with PI-Dr. Mike Ross (PI).

#### 2006

- Developing a Data-driven Classification of South Florida Plant Communities. Funded by National Park Service-South Florida Caribbean Network (NPS/SFCN). \$55,318. 2006-2008. Co-PI with Mike Ross (PI).
- Effect of Grazing on *Mikania micrantha* in Koshi Tappu Wildlife Reserve, Nepal: A Case Study. Funded by IUCN. Funded by IUCN-Bangkok. **\$5,000.** 09/01/2006 12/31/2006. **Co-PI** with Prof R. P. Chaudhary (PI), TU, Nepal.

#### 2005

• Everglades Fire Effects Monitoring in Cape Sable seaside sparrow Habitat and Adjacent Plant Communities. Funded by Everglades National Park (ENP). \$16,000. 11/01/2005 – 12/31/2006. Co-PI with Mike Ross (PI)

# Before 2000 (Nepal/USA) (\$10,500 as PI, \$4,500 as Co-PI)

- Implications of Vegetation Dynamics for managing wetlands in lowland Nepal. May 1997-Dec 2000. Funded by National Geographic Society, USA. \$ 10,000 (PI as a Ph.D. Candidate at FIU)
- Diversity and Conservation Strategy of some potential Medicinal Plants in Manang, Nepal. Funded by Annapurna Conservation Area Project (ACAP), Nepal. June-August 1995. Funded in NRs. **Approx. US\$ 2,000 (Co-PI** with Dr. Krishna K. Shrestha (PI), TU, Nepal)
- Wetland Vegetation and Management in Ghodaghodi Tal, Nepal. Funded by IUCN, South-east Asia Regional Office, Bangkok. Sept. 1994 Aug. 1995. US\$ 500 (PI).
- Study of some Medicinal Plants around Pokhara Valley. Funded by Royal Nepal Academy of Science and Technology (RONAST), Nepal Dec 1987 to Dec 1989. Funded in NRs. Approx. US\$
   2500 (Co-PI with Dr. Radheshyam Kayastha (PI), Pokhara Campus, TU, Nepal)

# 11. Collaborations (Abroad)

1. Collaboration with Dr. Hadi, Lambung Mangkurat University, Indonesia:

Served as collaborator on a project, "Consequences of the loss of biodiversity in wetlands of Indonesia caused by oil palm development.", funded to Dr. Abdul Hadi by 'The American Institute for Indonesian Studies (AIFIS), Ithaca, NY. As part of the project, hosted Dr. Hadi as visiting professor at Florida International University (FIU) for three weeks (July 17-Aug 22, 2022).

#### 2. Collaboration with Dr. Ugurlu, Bursa Technical University, Turkey:

Served as a potential contact person for an application for Erasmus+ proposal that would facilitate to develop a program for training and education mobility to study wetlands in Turkey by faculty and students from both universities.

#### 12. In News/Newsletter

- 1. FIU College of Arts, Science & Education (CASE) News:

  Meet our SERC scientists: Dr. Jay Sah: <a href="http://casenews.fiu.edu/index.php/2018/06/29/meet-our-serc-scientists-dr-jay-sah/">http://casenews.fiu.edu/index.php/2018/06/29/meet-our-serc-scientists-dr-jay-sah/</a> (Currently: Link inactive)
- 13. Languages (Fluent in reading and writing): English, Nepali, Hindi, Maithili

# 14. Affiliated Professional Organizations:

#### **Current memberships**

- 1. International Association of Vegetation Science (IAVS) Member (1994-1995; 2009-)
- 2. The International Association for Ecology (INTECOL) Member (2004-)
- 3. The Ecological Society of America (ESA) **Member** (2004-)
- 4. National Geographic Society (NGS) Member (2001-)
- 5. Society of Wetland Scientists (SWS) Member (2004-2023), Life Member (2024-)
- 6. Natural History Society of Nepal (NAHSON) Life Member (Since 1998)
- 7. Nepal Botanical Society (NBS) Life Member (Since 1994)
- 8. Ecological Society, Nepal (ECOS) **Life Member** (Since 1994)

# Professional Services/Past memberships

- 9. Association of Fire Ecology (AFE) **Member** (2006-2013)
- 10. American Association for the Advancement of Science (AAAS) Member (2006-2009)
- 11. Natural Areas Association (NAA) **Member** (2001-2007)
- 12. National Institute of Ecology, India (NIE) Member (Since 1998-2002)
- 13. Wetlands Nepal (WetNepal) **Founder President** (1999-2001)
- 14. Nepal Botanical Society **Treasurer** (1994-1996)
- 15. Nepal GIS Society (NEGISS) **Executive member** (1995-1996)
- 16. Ecological Society, Nepal (ECOS) **Executive member** (1994-1996)
- 17. Nepal University Teacher's Association, Kirtipur Executive Member (1994-1996)
- 18. Nepal Biotechnology Association **Executive Member** (1989-1992)
- 19. International Society for Tropical Ecology (ISTE)- Member (1984-2000)
- 20. Indian Ecological Society Member (1985-1989)
- 21. Nepal Environmental Conservation Group Member (1983-1989)
- 22. Tribhuvan University Botanical Society Graduate student representative (1980-1982)

Date: January 21, 2025