

Everglades Publications by Fred Sklar

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Education:

- Ph.D. 1983. Louisiana State University, Baton Rouge. Dissertation title: 'Water Budget, Benthological Characterization, and Simulation of Aquatic Material Flows in a Louisiana Freshwater Swamp.
- M.S. 1976. Louisiana State University, Baton Rouge. Thesis title: 'Primary Production in the Mississippi Delta Bight Near a Shallow Bay Estuarine System.
- B.A. 1973. Rutgers College, New Brunswick, NJ.

Expertise:

Project management, landscape ecology, coastal and wetland ecology, ecosystem modeling, natural resource management, marine biology, systems analysis, dynamic simulation, remote sensing, image processing, computer applications in environmental science, computer programming, manipulative field ecology, physiological ecology, biogeochemical processes, and global climate change.

Projects:

- LILA - Loxahatchee Impounded Landscape Assessment

Publications:

Sklar, F.H. and C. Hunsaker. 2001 The use and uncertainty of spatial data for landscape models: An overview with examples from the Florida Everglades. Hunsaker, C.T., M.F. Goodchild, M.A. Friedl and T.J. Case. (eds.). Spatial Uncertainty in Ecology, 15-46. Springer-Verlag. New York.

Sklar, F.H., C. McVoy, R. Van Zee, D. E. Gawlik, K. Tarboton, D. Rudnick, S. Miao, and T. Armentano. 2001. The effects of altered hydrology on the Everglades. Porter and Porter (eds). The Everglades, Florida Bay and Coral reefs of the Florida Keys: An Ecosystem Sourcebook. CRC Press, 39-82, Boca Raton, FL.

Sklar, F.H., H.C. Fitz, Y. Wu, R. Van Zee and C. McVoy. 2001. The design of ecological landscape models for Everglades restoration. Ecological Economics 37:379-401.

Miao, S., S. Newman, F.H. Sklar. 2000. Effects of habitat nutrients and seed sources on growth

and expansion of *Typha domingensis*. *Aquatic Botany*, 68(4):297-311.

Sklar, F.H. et al. 2000. The hydrological needs of the Everglades. Chapter 2, Redfield, G. (ed.) *The Everglades 2001 Consolidated Report*, 1-68. SFWMD, West Palm Beach, FL.

Fitz, H.C., F.H. Sklar. 1999. Ecosystem analysis of phosphorus impacts and altered hydrology in the Everglades: a landscape modeling approach. In: K. R. Reddy, G. A. O'Connor, and C. L. Schelske (Eds.), *Phosphorus Biogeochemistry in Subtropical Ecosystems*. Lewis Publishers, Boca Raton, FL. pp. 585-620.

Rudnick, D., C. Madden and F. Sklar. 1999. Sufficiency Review of Information Needed to Establish Minimum Flows and Levels for Florida Bay. A SFWMD Report.

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Miao, S., F.H. Sklar. 1998. Biomass and Nutrient Allocation of Sawgrass and Cattail along a Nutrient Gradient in the Florida Everglades. *Wetlands Ecology and Management*, 5:245-263.

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Sklar, F.H., J. Browder. 1998. Coastal Environmental Impacts Brought About by Alterations to Freshwater Flow in the Gulf of Mexico. *Environmental Management*, 22(4), 547-562.

Wu, J., H. Huang, H.C. Fitz, Y. Wu, F.H. Sklar. 1998. A new domain partition scheme for the Everglades Landscape Model. *International Journal of Computers and Applications*, 20:137-146.

Wu, J., J. Pan, K. Gopu, F. Sklar and Y. Wu. 1998. Parallel implementation of the Everglades Landscape Model. *Proceedings of the Seventh ISCA International Conference on Parallel and Distributed Computing and System*. Washington, D.C.

Miao, S., R. Borer, F.H. Sklar. 1997. Sawgrass Seedling Responses to Transplanting and Nutrient Additions. *Restoration Ecology*, 5(2):162-168.

Wu, Y., F.H. Sklar, K. Rutchev. 1997. Analysis and Simulations of Fragmentation Patterns in the Everglades. *Ecological Applications*, 7(1):2658-276.

Fitz, H.C., E.B. DeBellevue, R. Costanza, R. Boumans, T. Maxwell, L. Wainger, F.H. Sklar. 1996. Development of a general ecosystem model for a range of scales and ecosystems. *Ecological Modeling* 88: 263-295.

McCormick, P., P. Rawlik, K. Lurding, E. Smith, F.H. Sklar. 1996. Periphyton-Water Quality Relationships Along a Nutrient Gradient in the Northern Florida Everglades. *N. American Benthol. Soc.*, 15(4):433-449.

Wu, Y., F.H. Sklar, K. Gopu, K. Rutchey. 1996. Fire Simulations in the Everglades Landscape Using Parallel Programming. *Ecological Modeling* 93:113-124.

Hutchinson, S.E., F.H. Sklar and C. Roberts. 1995. Short term sediment dynamics in a southeastern U.S.A. *Spartina* marsh. *J. Coastal Res.* 11(2):370-380.

Sklar, F. H. 1995. Coastal Gulf of Mexico environmental impacts brought about by alterations to freshwater flow. NRC Ocean Studies Board. Symposium on Improving Interactions Between Coastal Science and Policy, 25-27 Jan. 1995, New Orleans, 217-238. National Academy of Science Press. Washington D.C.

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Reyes, E., F.H. Sklar and J.W. Day, Jr. 1994. A regional organism exchange model for simulating fish migration. *Ecol. Mod.* 74:255-276.

Reyes, E., J.W. Day and F.H. Sklar. 1994. Ecosystem models of aquatic primary production and fish migration in Laguna de Terminos, Mexico. W. J. Mitsch (ed.). *Global Wetlands: Old and New*. Elsevier Science B.V., Amsterdam, 519-536.

Sklar, F.H., K. Gopu, T. Maxwell, R. Costanzac. 1994. Spatially Explicit and Implicit Dynamic Simulations of Wetland Processes. W.J. Mitsch (ed.) *Global Wetlands: Old and New*. Elsevier Science B.V., Amsterdam, 537-554.

Childers, D.L., F.H. Sklar and T. Jordon. 1993. Seasonal measurements of sediment elevation in three mid-Atlantic estuaries. *J. Coastal Res.* 9(4):986-1003.

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Hutchinson, S. and F.H. Sklar. 1993. Lunar periods as grouping variables for temporally-fixed sampling regimes in a tidally dominated estuary. *Estuaries*, 16(4):789-798.

Sklar, F.H. and R. Costanza. 1991. The development of dynamic spatial models for landscape ecology: A review and prognosis. M. G. Turner and R. H. Gardner (eds.). *Quantitative Methods in Landscape Ecology*. Springer-Verlag, New York, pp. 239-288.

Boumans, R and F.H. Sklar. 1990. A polygon-based spatial (PBS) model for simulating landscape change. 1990. *Landscape Ecology*. 4(2/3): 83-97.

Costanza, R., F.H. Sklar and M. White. 1990. Modeling coastal landscape dynamics. *Bioscience*. 40(2):91-107.

