Record Nr. UNINA9910450924803321 Autore Richardson Curtis J Titolo The Everglades experiments [[electronic resource]]: lessons for ecosystem restoration / / Curtis J. Richardson New York, : Springer, c2008 Pubbl/distr/stampa 1-281-24221-7 **ISBN** 9786611242213 0-387-68923-0 Edizione [1st ed. 2008.] Descrizione fisica 1 online resource (695 p.) Ecological studies; ; v. 201 Collana Disciplina 639.909759/39 Soggetti Ecosystem management - Research - Florida - Everglades Ecosystem management - Florida - Everglades Restoration ecology - Florida - Everglades Electronic books. Everglades (Fla.) Environmental conditions Research Everglades (Fla.) Environmental conditions Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Everglades Ecosystem -- Overview of Gradient Studies and Experiments -- Ecological Status of the Everglades: Environmental and Human Factors that Control the Peatland Complex on the Landscape -- Soil Characteristics of the Everglades Peatland -- Vegetation and Algae of the Everglades Fen -- Nutrient and Hydrologic Gradient Studies -- to the Gradient Studies -- Enrichment Gradients in WCA-2A and Northern WCA-3A: Water, Soil, Plant Biomass, and Nutrient Storage Responses --

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## Sommario/riassunto

Covering more than 4,300 square miles in Southern Florida, the Everglades are the largest subtropical wilderness in the United States. It has been designated an International Biosphere Reserve, a World Heritage Site, and a Wetland of International Importance, in recognition of its significance to all the people of the world. However, it is apparent that the Everglades have undergone radical changes in both water flow and water quality over the years. The Everglades Experiments: Lessons for Ecosystem Restoration is a synthesis of the key findings and a summary of the experiments conducted during a fourteen-year period (1989-2003) by the Duke University Wetland Center and its partner institutions. Synthesized by Curtis J. Richardson, the findings are the result of extensive experimental research on the effects of water. nutrients, and fire on the Everglades communities. The research focused on such key questions as: What are the effects of increased nutrient and water inputs on the native plant and animal communities? What is the long-term nutrient storage capacity of the Everglades? and How can water management in the Everglades be improved to maintain the natural communities? This work covers both the structural and functional responses of the Everglades ecosystem via experimental and gradient studies on microbial activity, algal responses, macroinvertebrate populations, macrophyte populations, and productivity in response to alterations to nutrients in soil and water, hydrologic changes, and fire. Importantly, this volume reclassifies the Everglades, provides a comparison of historic and current ecological processes, and presents a new working hydrologic paradigm, which collectively provides essential lessons for the restoration of this vast peatland complex.