The Nature Conservancy

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Tropical Florida Ecoregional Plan

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TROPICAL FLORIDA ECOREGIONAL PLAN

Executive Summary

Conservation scientists have divided the continental United States into 63 ecoregions, which are areas of similar climate, topography and soils that support a discrete range of habitat types. The Tropical Florida Ecoregion is one of these areas. Ecoregional plans are intended to identify those places (portfolio sites) within each ecoregion that, when taken together, (the whole portfolio) will provide sufficient habitat over the long run to sustain all of the plants and animals native to that ecoregion. This ecoregional plan is a conservation planning tool that will be used by The Nature Conservancy in working with partners to further define and accomplish conservation projects and objectives in South Florida.

The Tropical Florida Ecoregion includes 6,092,190 acres. Because it lies entirely within the political confines of a single state (Figure 1), it is somewhat unusual among ecoregions. The ecoregion is dominated by several large managed areas of which the most prominent are three federal holdings: Everglades National Park (1,508,537 acres), Big Cypress National Preserve (716,000 acres) and Biscayne National Park (172,924 acres). An estimated 97% of the entire southeastern coastal area of the mainland within the ecoregion is urbanized with a continuous zone of intensive development stretching from Homestead northward through the Greater Miami area to Ft. Lauderdale.

Florida has been fortunate to have had an aggressive, well-funded, public land acquisition program over the past four decades, including Preservation 2000 and Florida Forever, that provided $300 million each year from 1991 through 2004 (and will continue through 2010) for natural resource and recreation-based land conservation. Currently, Florida has more than 25% of its lands and waters in areas managed, at least partially, for conservation (i.e., managed areas).

The Tropical Florida Portfolio consists of 65 individual portfolio sites (or areas of biodiversity conservation significance), encompassing 4,353,072 acres or about 70% of the total lands and waters within the ecoregion. For the purpose of assessing threats and identifying conservation strategies, these individual sites have been grouped into 10 conservation areas. The size of the individual portfolio sites ranged from five acres to 904,916 acres. Terrestrial-based sites account for 70% of the portfolio, while aquatic systems (fresh water, estuarine and marine) account for 30%.

Ten different kinds of managed areas (by type of managing agency) occur in the Tropical Florida Ecoregion. These managed areas total 4,255,594 acres (61% of the ecoregion — very high compared to the state as a whole) of which 4,178,960 acres (98%) are within the portfolio. Existing managed areas (including waters) account for 85% of the portfolio, while proposed conservation lands (3%), other public domain waters (2%) and private lands (10%) account for 758,145 acres (or 15%) of the total portfolio.

At least 33 data sources (in addition to seven expert workshops) were used to select the conservation targets (the species and natural communities that should be protected) within the ecoregion. The database of the Florida Natural Areas Inventory (FNAI — the Heritage Program in Florida) was the primary source for the selection of conservation targets and 3,760 Element Occurrence

Records (EORs) were individually examined during the planning process. (Element Occurrence Records are records of where individual species or exemplary natural communities are known to exist). The total number of targets for the Tropical Florida Ecoregion included 185 taxa of plants, 6 taxa of fish, 16 taxa of herpetofauna, 35 taxa of birds, 14 taxa of mammals, 13 taxa of invertebrates and 43 ecological systems (18 of which are aquatic or marine). A total of 312 conservation targets were chosen for the ecoregional analyses.

Standard goals for targets — both species and ecological systems — were set as recommended in *Designing a Geography of Hope* (Groves et al., 2000); The Nature Conservancy guidebook for ecoregional planning. Viability of targets (that is whether there are enough occurrences or sufficient extent of a target remaining to assure that that species or natural community will persist into the future) was determined through an examination of all available data, specifically size and condition, coupled with expert opinion on a taxonomic group-by-group basis of what population parameters constitute viable occurrences. Heritage ranks for those Element Occurrences documented more recently than 1980 were used when available. For occurrences lacking this information, a viability model utilizing land cover/land use data, existing roads and roadless areas, areas of exotic infestation, and other data was also used to assess the viability of the target from a landscape context perspective.

During the portfolio assembly process emphasis was placed on building a portfolio that encompassed functional landscape-scale sites (including existing managed areas and surrounding private lands with high quality occurrences of ecological systems) and provided connectivity for large, wide-ranging vertebrates. A fine-filter approach was also important for building a portfolio that adequately captured the numerous rare species of Tropical Florida.

Goals were met for the following taxonomic categories: 40 plants (21%), zero fish (0%), 3 herpetofauna (19%), 21 birds (60%), 4 mammal (29%), zero invertebrates (0%) and 15 ecological systems (35%). With over 70% of the ecoregion encompassed by the portfolio, goals were expected to be met to a greater extent. However, the general lack of data (e.g., invertebrates and fish) and/or recent inventories for many of these species and ecological systems may be a primary factor in the inability to meet goals. Further, disproportionately high numbers of targets in this ecoregion are genuinely rare, and the general numeric goals developed may have been unrealistic (see Discussion for further comments).

Portfolio sites were grouped into 10 larger conservation areas for the purposes of identifying threats and strategies. Based on an analysis of their contribution to ecoregional conservation goals and threat status, 7 of these areas were identified as conservation action sites, requiring immediate implementation of conservation strategies. In addition, a number of land acquisition focus areas have been identified as important to implementing portfolio conservation. The six highest priority threats to the portfolio and throughout the ecoregion include: 1) invasive non-native species; 2) climate change; 3) disruption of natural hydroperiod (timing, pattern and quantity of flow) and other natural water regime manipulation caused by ditching, draining and diking; 4) water quality degradation; 5) wholesale conversion of the landscape for agriculture and urban/suburban development; and 6) altered fire regime. The highest leverage and most feasible multi-site strategies include: 1) a comprehensive non-native species control program; 2) an evaluation of climate change implications to specific species and communities, and incorporation of findings into protected area designs; 3) implementation of CERP and water reservations for the natural system; 4) the

development of new programs and funding opportunities to implement regional land acquisition; and 5) the coordination of prescribed fire resources, management, and education across the region.

Many of these strategies are underway within this ecoregion, which includes some of the largest scale (and most expensive) ecological restoration projects on Earth including implementation of the Comprehensive Everglades Restoration Plan and the Management Plan for the Florida Keys National Marine Sanctuary. The Nature Conservancy is assisting in these efforts, but they are, appropriately, led by federal and state agencies. There has been extraordinary cooperation and communication among those agencies in the planning and carrying out of these initiatives. Given this, the plan identifies a particularly pressing need for land acquisition and other conservation action in the western portions of the ecoregion; facing acute development pressures, there is little time left to save sufficient habitat for Florida panther and other species and ecological communities present on the large ranches north and east of Naples.

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Acronyms

ACI:	Areas of Conservation Interest
AVO:	All Viable Occurrences (as in AVO targets)
CARL:	Conservation and Recreation Lands; a Florida land acquisition program
EO:	Element Occurrence
EOR:	Element Occurrence Record
ESRI:	Environmental Systems Research Institute; a GIS and Mapping software company
FDOT:	Florida Department of Transportation
FFWCC:	Florida Fish and Wildlife Conservation Commission (previously FFWFGC)
FFWFGC:	Florida Freshwater Fish and Game Commission (now FFWCC)
FNAI:	Florida Natural Areas Inventory
GAP:	Refers to the Gap Analysis Program and/or gap methodology for assessing to what extent native animal and plant species are being protected.
GIS:	Geographic Information System
HUC:	Hydrologic Unit Code; a unique identifier for each hydrologic unit based on its levels of classification in the hydrologic unit system.
LCA:	Large-scale Conservation Area
OGT:	Office of Greenways and Trails
P2000:	Preservation 2000
PNA:	Potential Natural Areas
SCS:	Southeast Conservation Science
SHCA:	Strategic Habitat Conservation Areas
SOR:	"Save Our Rivers"; a program enacted by the Florida Legislature in 1981 for land acquisition by Water Management Districts.
SPOT:	A system of satellites collecting high-quality digital imagery of Earth
UF:	University of Florida
WEC:	Wildlife Ecology and Conservation

I. INTRODUCTION

The Purpose of Ecoregional Plans

This ecoregional plan is intended to provide a scientific basis for setting goals and identifying conservation priorities for the Florida Chapter of The Nature Conservancy and to establish the foundation for the Conservancy to work with other public and private organizations in conserving the exceptional natural character of the Tropical Florida Ecoregion.

Conservation scientists have divided the continental United States into 63 ecoregions which are areas of similar climate, topography, and soils that support a discrete range of habitat types. The Tropical Florida Ecoregion is one of these areas. Ecoregional plans are intended to identify those places (portfolio sites) within each ecoregion that, when taken together (the whole portfolio), will provide sufficient habitat over the long run to sustain all of the plants and animals native to that ecoregion. Ecoregional plans are the first step in a science-based conservation planning process that identifies in an objective manner where The Nature Conservancy and other public and private conservation organizations can best focus their biodiversity conservation efforts to achieve the goal of protecting the entire range of species within each ecoregion. Ecoregional plans, like this Tropical Florida Plan, also begin the process of identifying threats to portfolio sites and selecting conservation strategies to address those threats.

The "State" of Florida

Florida's geographical and biological character are unique in the United States. Extending 300 miles southward from the mainland, the Florida peninsula begins in the temperate southeast and ends in the subtropical Everglades and Florida Keys. The Florida Panhandle includes pine forests, wetlands, springs and rivers and was identified by *Precious Heritage,* The Nature Conservancy's evaluation of biological diversity in the U.S., as one of two "biological hotspots" east of the Mississippi River.

Florida supports the fourth highest biodiversity in the United States and ranks third in the number of species listed as threatened or endangered by the U.S. Fish and Wildlife Service. Florida has at least 3,500 native plant species (235 of which are endemic), 126 inland fish species (7 endemic), 57 species of amphibians (6 endemic species/subspecies), 127 reptiles (37 endemic species/subspecies), 283 bird species (7 endemic subspecies), 75 mammal species (58 endemic species/subspecies) and countless invertebrates (with at least 410 known to be endemic). At least 117 species or subspecies — nearly 17% of all native fauna — are thought to be in danger of extinction (Florida Biodiversity Task Force, 1993).

This natural heritage has been impacted by nearly 100 years of accelerating change.

Originally, tourists came during the winter, spent their dollars and then went home. The summers in Florida were far too hot and humid and the variety and abundance of stinging and biting insects too much to bear. On the uplands the soils were too sandy and infertile to grow enough crops to support a large, resident human population. Much of the state was dominated by deep swamps — including the vast, and once seemingly impenetrable, Everglades ecosystem. All of this began to change in the 1920's when screens were first placed into widespread service and the ditching, diking,

and draining of swamps began in earnest. After World War II, the increasing affordability and common use of air conditioners, pesticides, and fertilizers altered the demographics of Florida's resident human population. Nothing has been the same since that time — except that tourists still pour into Florida each year, and in ever increasing numbers have decided to stay.

The state's permanent population has now increased to over 15 million. Forty-two million annual visitors place an added strain on Florida's resources, as they require a variety of goods and services, many of which are extracted from the natural environment. Theme parks like Disney World — begun in the late 1960's and now the number one tourist destination in the world — and other amusement areas and resorts have further changed the face of Florida.

Fortunately, in response to the pressures of change, Florida has recognized its natural resource values and has a tradition of natural resource conservation. This tradition is a product of:

- The foresight and leadership of early conservationists such as Marjory Stoneman Douglas and Archie Carr.
- A recognition by appointed and elected officials that Florida's tourism-based economy is dependent upon maintaining the scenic value and outdoor recreational opportunities offered by its unique landscape.
- A growing understanding that Florida's exceptional natural diversity is at risk from rapid change.

Although a detailed history of conservation endeavors in Florida is too complex to fully review here, a few recent highlights deserve mention. The state's Conservation and Recreation Lands (CARL) program and its five water management districts (quasi-state agencies with a water resource protection mandate) have acquired hundreds of thousands of acres over the past 30 years. They have performed their own analyses to identify important conservation lands and have a scientifically-based review process for considering acquisition projects nominated to the program.

It was the passage of Preservation 2000 — a 10-year, three billion dollar land and water conservation program — in 1990, however, that established Florida as a leader in funding conservation. The Nature Conservancy was important in helping to craft the concept and pass the legislation leading to Preservation 2000 (P2000). Ingeniously, or ironically, the growth that destroys and fragments the landscape of Florida provides the funding for conservation through a portion of the tax on real estate transactions that is used to pay the debt service on the bonds issued to fund the program. During the nine-year period from 1990 to 1999, over one million acres of conservation lands were acquired with P2000 funding. It is reliably estimated that more than 25% of the state is currently in some kind of conservation ownership, equating to more than 10 million acres of the state's roughly 39,000,000 acres of land and water (Jue et al., 2001; FNAI, 2004).

Yet despite such progress, and as a result of continuing change at every ecological level — genetic, species, community, ecosystem and landscape — Florida appears to be on the brink of biological impoverishment. Although no precise accounting for the Tropical Florida Ecoregion is available because only data for the rare, threatened and endangered elements are tracked at the ecoregional level, it is estimated that at least two-fifths of Florida's biodiversity resides in this ecoregion.

Setting the Stage for Ecoregional Planning

Closely linked to the conservation tradition in Florida have been several analyses of the state's natural resources that include detailed evaluations of the conservation status of its flora, fauna and natural communities. The identification of scores of rare, threatened and endangered species, biodiversity "hotspots", centers of endemism, lands critical to the conservation of imperiled populations of species and natural communities, and recommendations for permanently protecting these lands have been put forth in various reports since 1990. The first of these was a "charrette" mapping workshop by 40 conservation experts, botanists, zoologists, ecologists, geologists, hydrologists and land managers. Their charge was threefold: 1) produce maps showing the total extent of Florida to acquire and manage for preservation/restoration "given unlimited money and authority"; 2) identify the highest priority systems and sites for conservation given P2000 funding limits; and 3) produce a "top priority" map reflecting each individuals three highest priority tracts for conservation.

A map of Ecological Resource Conservation Areas divided into P2000 "Acquisition Priority Areas" and "Areas of Conservation Interest" was produced — building upon, but not including, existing conservation lands. This map was the initial blueprint intended to guide acquisition under Florida's (at that time) new P2000 program. The Acquisition Priority Areas totaled some 3,167,000 acres (= 8% of the state), while the Areas of Conservation Interest included 6,283,000 acres (= 17% of the state) for a total of 9,450,000 acres (or 25% of the Florida landscape). Given the fact that Florida already had 21.6% (8,095,000 acres) of its land in some kind of conservation, the experts at the workshop thought that 47% of the state needed to be conserved in order to meet their combined conservation vision.

While the final map was highly informative and did indeed lead to many sound conservation projects, it was not based on a rigorous scientific analysis of existing data nor did it utilize a truly defensible set of criteria for deciding upon what lands to include. While making a good attempt to provide habitat corridors and to identify those lands most needed for sustaining ecosystem function and biological diversity, some areas of poor quality resources and a few individuals' favorite areas were mapped that did not appear in subsequent analyses. Several areas that have since been recognized as vital to the conservation of Florida's biodiversity were depicted as too small to provide an adequate landscape for supporting viable populations of some species, and some key landscape connectors were not included (e.g., for Florida panther — *Felis concolor coryi*). This map was later published as part of a hallmark report entitled *Conserving Florida's Biological Diversity — A Report to Governor Lawton Chiles* (Florida Biodiversity Task Force, 1993).

The next major analysis for the conservation of Florida biodiversity was a scientifically rigorous, Geographic Information System (GIS) based report prepared by the Florida Fresh Water Fish and Game Commission's (FFWFGC) Office of Environmental Services (Cox et al., 1994). Their report entitled, *Closing the Gaps in Florida's Wildlife Habitat Conservation System: Recommendations to Meet Minimum Conservation Goals for Declining Wildlife Species and Rare Plant and Animal Communities* had an immediate impact on Florida conservation efforts — and on The Nature Conservancy. Utilizing over 25,000 geographically referenced points documenting known occurrences of rare plants, animals and communities, as well as several other digitized maps (e.g., existing conservation areas, soils, roads), habitat models, and satellite imagery, the report analyzed the degree of security provided to rare species and communities by Florida's existing system of conservation lands. Furthermore, the report

identified important unprotected habitat areas needed to meet minimum conservation goals for 30 species of wildlife inadequately protected on Florida's existing conservation lands, four endemic/near-endemic natural communities, bat maternity caves and roost sites, wetlands important to the breeding success of eight species of wading birds, and lands important to the long-term survival of 105 globally rare plant species. The areas so identified were called Strategic Habitat Conservation Areas (SHCAs).

These SHCAs encompass 4.82 million acres, or 13% of the land area of Florida. At the time of the report only 21% — or 6.95 million acres — of Florida was included within the existing system of conservation lands. Their recommendation, then, was that nearly 34% of Florida's land base, some 11,700,000 acres, was required to provide "some of the state's rarest animals, plants and natural communities with the land base necessary to sustain populations into the future". Of intense interest to many conservationists was the distribution of SHCAs, many of which were aggregated into landscapes necessary to provide both habitat and dispersal corridors for large, wide-ranging vertebrate species such as the Florida panther and Florida black bear. Additionally, their well-conceived and researched habitat models and their analysis of population viability and the number and size of populations needed — at a minimum — to provide species (and, by extension, communities) with a >90% probability of survival for 100 years has provided a reasonably sound goal for Florida conservationists and conservation programs. The FFWCC's work also stressed the need for excellence in land management of conservation lands and the pivotal role that management can play in sustaining even smaller than optimal populations far into the future.

Concomitant with that effort was the undertaking by the Florida Natural Areas Inventory (FNAI) of a painstaking examination of Florida Department of Transportation (FDOT) 1:2,083 scale aerial photographs of every square mile of Florida's 35,000,000 (terrestrial) acres. The purpose of this analysis was the identification of every remaining natural area in Florida as based on the most recent resource available (1991-1993 aerial photography). This was done because the FFWFGC SHCA analyses used 1985-1988 Landsat images, and many of these images were generalized and unable to distinguish specific community types, and because Florida's landscape changes so quickly that more up-to-date information was required on which to base actual land acquisition decisions and projects. The results of the FNAI aerial photographic analysis were manually mapped onto FDOT County Maps and then ultimately digitized and the data transferred to a GIS. Their maps of both Areas of Conservation Interest (ACIs — in which identified polygons had a known occurrence point) and Potential Natural Areas (PNAs — polygons that may encompass high quality natural communities and rare species but for which no occurrence records exist) have been instrumental in locating, designing and conserving strategic natural lands across Florida.

Another kind of analysis was performed for the report *Creating a Statewide Greenways System: for People…for Wildlife…for Florida* (Nelson and Dughi, 1994). A 40 member Greenways Commission was created by political appointment that included people from a wide variety of interests ranging from conservation, recreation, business, development, forestry, agriculture, education, local community groups, and others. The goal of the three year Florida Greenways Project was to find ways to link existing urban and rural green space (including high quality conservation lands) to create a statewide "green infrastructure". By focusing on connectivity it was anticipated that the project could support statewide conservation efforts in Florida by: 1) better protecting and managing the state's biodiversity and water resources; 2) forging better links between Floridians and their natural environment; and 3) developing more widespread and popular support for natural resource conservation. Indeed, the idea and concepts in the report caught on quickly and did gain a large level

of popular support during the first few years. The Florida Department of Environmental Protection formed the Office of Greenways and Trails (OGT) to help implement many of the recommendations in the report, supported with its own small portion of P2000 funding.

The original Greenways report was later augmented by a thorough ecologically-based analysis funded by the OGT to identify a series of Ecological Greenways that not only consisted of high quality natural areas, but would serve as habitat corridors actually used by vertebrates on the Florida landscape. The Florida Ecological Greenways Network are not simply hiking and horse riding trails, they were designed to serve as significant natural areas and habitat linkages in their own right that would assist in conserving the state's biodiversity. Utilizing scores of up-to-date data layers and a sophisticated Least Cost Surface algorithm, the GIS-based analysis identified a series of natural wildlife habitat corridors that could create — if conserved quickly — a true "green infrastructure" that would link together Florida's most important conservation lands. Additionally, the Ecological Greenways were prioritized into critical linkages for conserving Florida's large vertebrate wildlife. This analysis was begun in 1995 and continued through 1997 (Zwick et al., 1999).

Although P2000 proved a conservation success, there was lingering criticism of it by the Florida legislature who felt that although many acres were acquired during the program, there was no system to measure success or determine if the best conservation lands had been acquired. As a result of that concern — and since it is the legislature that appropriates the huge sums of money required for the program — Florida's new $300 million a year program, Florida Forever, has been provided with a series of goals and measures by which progress and success can be quantified. The *Florida Forever Conservation Needs Assessment — Summary Report to the Florida Forever Advisory Council* (Knight et al., 2000) is now the latest of the series of GIS-based landscape analyses to identify the most important lands for conservation in Florida. Overall, the report was prepared to provide baseline data for measuring 15 goals of the Florida Forever program including aquifer recharge, recreation, forest land managed for economic return, and significant archaeological sites, in addition to biodiversity-related measures. Its conservation priorities overlay model (a composite of several data layers and models) provides five classes of resource value. From high to low, these include 436,000, 822,000, 987,000, 3,366,000 and 17,176,000 acres, respectively.

It is against this background that the Florida Chapter of The Nature Conservancy has undertaken the development of the Tropical Florida Ecoregional Plan for an ecoregion that lies entirely within the state (Maps 1 and 2). Ecoregional planning provides an even more comprehensive approach to the conservation of biodiversity within Florida to achieve the goal set out in *Conservation by Design: A Framework for Mission Success* (The Nature Conservancy, 2000) — the long term survival of all viable native species and community types through the design and conservation of portfolios of sites within ecoregions. The Conservancy's coarse-filter (communities and ecological systems)/fine-filter (species) approach works well to identify a portfolio of sites necessary to conserve all — not just the rare — components representing biodiversity across ecoregions. The Florida Chapter has been, and remains firmly committed to, planning and implementing at a landscape-scale, emphasizing conservation at multiple spatial scales and levels of biological organization within large functional sites, and acknowledging the value of comprehensive biodiversity conservation planning along ecoregional, rather than political, lines.

Description of the Tropical Florida Ecoregion

Tropical Florida is a landscape under siege. It is also a landscape of great contrasts between highly fragmented upland terrestrial ecological systems and vast expanses of herbaceous wetlands. The tip of the Florida peninsula that comprises the Tropical Florida Ecoregion (Figure 1) is surrounded by the Gulf of Mexico to the west, the Atlantic Ocean (and warm Gulf Stream) to the east, and the Florida Straits, which divide Florida from the Bahamas and the Caribbean island of Cuba to the south. The Florida Keys — an archipelago of limestone islands clothed in lush vegetation and heavily influenced by the adjacent tropics — arc south-southwestward from near the southeastern edge of the peninsula. Biscayne Bay, a once productive estuary that is now enveloped by metropolitan Miami, lies along the southeastern coast of the ecoregion, while dense forests of mangroves dominate the Ten Thousand Islands area along a still nearly inaccessible portion of the southwestern coastline. Florida Bay, a productive fishing ground for pink shrimp, stone crab and a variety of sportfish lies between (and is partially encompassed by) Everglades National Park and the Florida Keys.

The Tropical Florida Ecoregion has a mild climate with temperatures typically ranging between 47 degrees Fahrenheit and 90 degrees Fahrenheit during an average year. The entire ecoregion is characterized by relatively high rainfall averaging 60 inches per year (although it is somewhat less in the Florida Keys). The species and communities are shaped by several dominant forces: pronounced wet and dry seasons, once frequent fires that swept unimpeded for miles across the landscape, a high water table, mucky or peaty soils that have developed in numerous depressional features in a limestone-based substrate, a relatively flat terrain where even slight changes in topography can dramatically influence the kind of community that develops, the recent geology of the region, the proximity to the tropics and Gulf Stream, and catastrophic large-scale disturbance events in the form of hurricanes (Myers and Ewel, 1990).

At the northern reaches of the ecoregion lies Lake Okeechobee, by far the largest freshwater lake in Florida. Receiving substantial inflows from the Kissimmee River in the south-central reaches of the Florida Peninsula Ecoregion directly to its north, Lake Okeechobee is where the Greater Everglades Ecosystem begins in earnest. Prior to settlement when waters within Lake Okeechobee reached flood stage they spilled over the southern rim of the lake (at an elevation of 20 feet above Mean Sea Level) and flowed across what is now Everglades National Park to Florida Bay, a distance of more than 100 miles. The drop of just over two inches for every linear mile created the development of a slow-moving, shallow, yet broad river that is the Everglades (Davis and Ogden, 1994). The dominant ecological community of the Everglades is essentially a floodplain marsh, or more properly a tropical swale, whose predominant emergent vegetation is sawgrass (actually a sedge — *Cladium jamaicense*).

Unfortunately, much of the Everglades system has been ditched, diked, and drained. Its waters now flow mostly through canals, and levels and flows are highly engineered by control structures that artificially regulate the timing and quantity of waters reaching the southern extent of the Everglades — including Everglades National Park and the productive estuary of Florida Bay. A 600 square-mile area along the southern shore of Lake Okeechobee — the so-called Everglades Agricultural Area (EAA) — has been completely cleared and converted to agricultural land, primarily sugarcane, that grows well in the mucky and peaty soils of this area. As if the highly engineered "plumbing" system controlling flows through the Everglades were not injurious enough to this fragile ecological system,

high levels of nutrients, particularly phosphorous, have greatly impacted the quality of the waters that move southward from the EAA through the Everglades. For years the waters have also been diverted from the Everglades through the elaborate canal system and dumped into Biscayne Bay, the Atlantic Ocean, and the southern extent of the Indian River Lagoon estuarine system.

A multi-billion dollar federal and state effort to restore the Everglades through a plan devised by the Army Corps of Engineers is now being implemented. The Everglades basin is partially formed by lands of slightly higher elevation along both coasts. Perhaps the most significant, from an ecological and conservation perspective, is the Atlantic Coastal Ridge, a Pleistocene-aged geologic formation. Consisting of thin, sandy soils overlying a limestone bedrock along the northeastern coast of the ecoregion, the Atlantic Ridge was once vegetated by a Florida scrub system dominated by sand pine (*Pinus clausa*) and various species of scrub oaks. Along the southeastern coast of the ecoregion, however, the sandy scrubs and pinelands give way to the Miami Rock Ridge composed of a soft, mostly exposed, oolitic limestone precipitated from marine systems during Pleistocene interglacial periods when the tip of the Florida peninsula was completely, and very recently, submerged (Gleason, 1974).

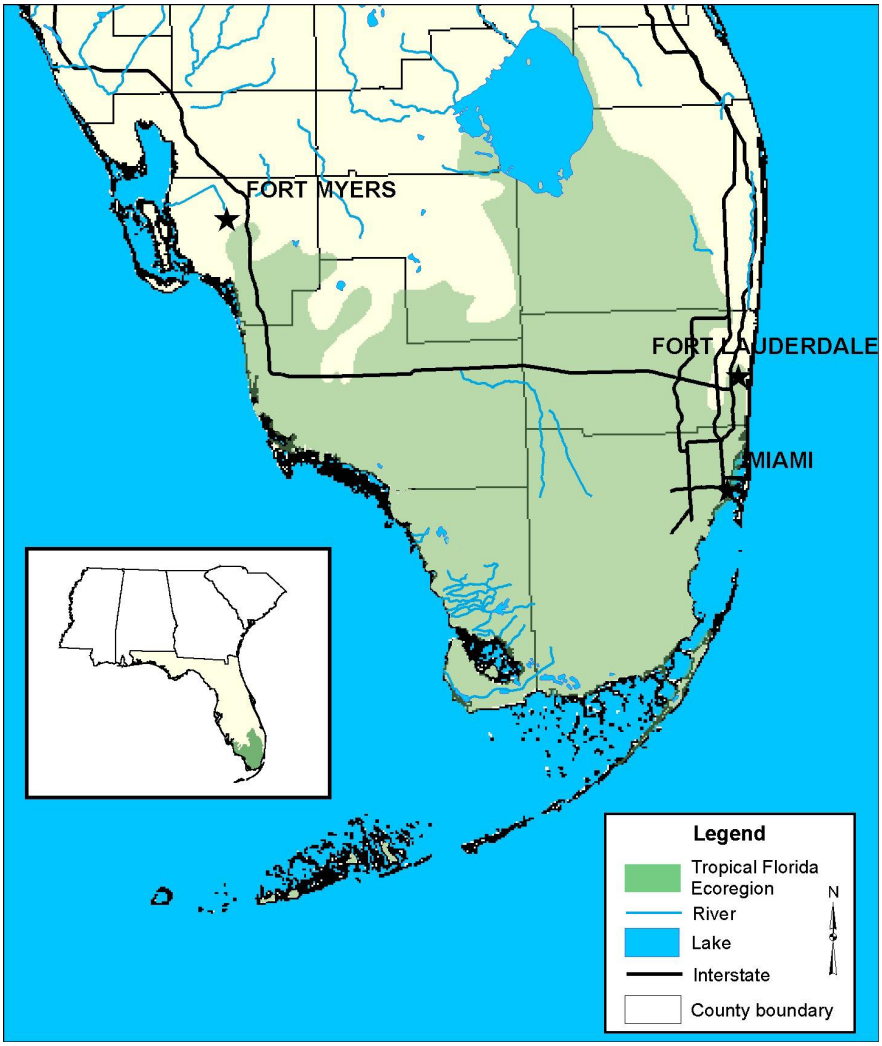

Figure 1. Location of the Tropical Florida Ecoregion.

The Miami Rock Ridge was once vegetated by a unique and endemic ecological system, the pine rockland (although similar to some communities in the Bahamas), that covered roughly 100,000 acres in the Miami area. Driven by the appetite of the American public for winter vegetables, much of this area was converted — by rock-plowing — to virtually hydroponic farmland in the 1950's and early 1960's. As Miami continued to grow southward, these agricultural areas were converted to housing and commercial developments. It is estimated that greater than 98% of the Pine Rockland community, including (sub)populations of its highly endemic flora, have been destroyed. Today, the pine rocklands exist as fragments of 10- to 40-acre parcels, but still support what many think are viable populations of endemic flora (Myers and Ewel, 1990).

Also occurring as small patches on the Miami Rock Ridge, and extending throughout the Everglades and into the Florida Keys, are a series of tropical hardwood-dominated forests referred to locally as "hammocks". This tropical hardwood hammock system, supporting a mixed canopy of up to 65 Caribbean-derived hardwood trees, once covered thousands of acres along the southeastern coast of the ecoregion in what is now Miami and Ft. Lauderdale. Although no precise estimates are available because so much of the hammocks were converted before anyone took much notice, it is thought that greater than 99% of this community type has been lost on the mainland. While a few high quality fragments exist on the southeastern coast, only in Everglades National Park, on the northern end of Key Largo and on several other of the Florida Keys is there still substantial — albeit imperiled — acreage of the hammock community. Additionally, the Florida Keys are habitat for several endemic vertebrates — including the diminutive, federally endangered, key deer (*Odocoileus virginianus clavium*) — as well as large mangrove forests and the only coral reef system in the continental United States (Gleason, 1974; Myers and Ewel, 1990).

The northwestern portion of the ecoregion includes the Big Cypress swamp ecosystem, much of which is now protected as a National Preserve. The deep, bald cypress (*Taxodium distichum*)-dominated tropical strand swamp system (a large patch community) also includes scattered pinelands on higher ground and pond apple/pop ash swamps embedded in deeper water depressions within the bald cypress strands. These latter areas within the tropical strand swamp mosaic support particularly diverse assemblages of epiphytes, including numerous species of orchids, bromeliads and ferns. This portion of the ecoregion is the last stronghold for the Florida panther, an endemic subspecies that is listed as federally endangered. It is estimated that about70 panthers remain in the wild in southern Florida (Beier et al., 2005); a population of *at least* 70 is required to sustain them over the next 200 years. Because the average home range of a male panther is about 135,000 acres (females 74,100 acres), and because of rapidly encroaching development from the cities of Naples and Ft. Myers along the southwest coast into their core habitat, there is an urgent need to secure a permanently protected dispersal corridor from the limited habitat in the Tropical Florida Ecoregion into the south-central portion of the Florida Peninsula Ecoregion within the next five years (Cox et al., 1994).

II. METHODS

The Planning Process

In 1999, several individuals were asked by the State Director and Southeast Division Vice President, Bob Bendick, to gather the data and conduct the analyses necessary to prepare the Tropical Florida Ecoregional Plan. This involved conservation target selection (selection of those species and ecological communities that should be protected to conserve the entire range of biodiversity within the ecoregion), goal setting, viability analysis, and site selection. The team possessed expertise and detailed knowledge of the Florida landscape, the distribution of ecological systems and species, regions of endemism and high biodiversity, intact functional landscapes, ownership patterns, acquisition and management partners (and other major stakeholders), and the procedures and processes utilized by the Conservancy's partners for making conservation decisions.

Core Technical and Planning Team members were:
Richard Hilsenbeck, Associate Director of Protection/Protection Ecologist, The Nature Conservancy – Team Leader
Tom Hoctor, Doctoral Candidate and Landscape Ecologist, Department of Wildlife Ecology, the University of Florida – Chief GIS Analyst and Information Manager
Wendy Caster, Conservation Biologist, The Nature Conservancy – Team Member
Raymond Moranz, Inventory Biologist, The Nature Conservancy – Team Member
Crystal Goodison, GIS Analyst, University of Florida – Team Member
Patty Hernandez, GIS Analyst, University of Florida – Team Member
Wendy Robinson Rieth, GIS Analyst, University of Florida – Team Member

In addition, the Core Technical and Planning Team invited a variety of Florida Chapter staff members to review the plan. A second team worked on threats assessment and sequencing conservation action in 2003/2004. Members included:

Core Project Staff:
Laura Geselbracht, South Florida and the Florida Keys Conservation Planner
Roberto Torres, Community Relations Specialist

Tropical Florida Threats Assessment and Sequencing Team:
Chris Bergh, Conservation Program Manager
Lincoln Bormann, Southwest Florida Program Director
Doria Gordon, Senior Ecologist
Richard Hilsenbeck, Associate Director of Protection
Tom Jordan, Protection Program Manager
Jim Murrian, Director of Field Conservation Services
Doug Shaw, Senior Conservation Hydrologist
Jody Thomas, Director of Florida Keys Program
Jora Young, Florida Chapter Director of Science and Special Projects

Target Selection

For more than two decades, The Nature Conservancy has employed a "coarse-filter/fine-filter" approach to protecting biodiversity and identifying conservation sites. This approach involves the identification and protection of conservation targets — those ecological systems, communities and species that are the focus of planning efforts in an ecoregion. The hypothesis behind the coarse-filter/fine-filter concept is that a subset of an ecoregion's species and communities can represent and facilitate conservation of the whole. Identifying and protecting intact representative examples of each ecological system or community native to an ecoregion (the coarse-filter) assures conservation of a large proportion of the species, biotic interactions, and ecological processes found there. In complement, the fine-filter strategy focuses on conserving individual rare or specialized species that are likely to slip through the coarse-filter or to be missed if only a few examples of each community type are protected.

Species Target Selection

In April of 1999, the Florida Natural Areas Inventory provided a list of imperiled species tracked in the Tropical Florida Ecoregion. This was used as a preliminary list of target species. During the summer of 1999, seven technical teams were established: one for each of the major taxonomic groups (fishes, plants, invertebrates, birds, amphibians and reptiles, and mammals) and one for ecological communities/systems. An expert workshop attended by 5 to 15 technical biologists was held for each team to refine the preliminary list of targets. The teams and their participants are listed in Appendix I. Additionally, some experts who could not attend provided feedback on selecting species targets after the meetings were held. Once the preliminary target list was provided to team members, they were asked to take into account the following criteria (developed by the Southeast Conservation Science staff) when selecting targets.

1) All viable, globally-imperiled (G1-G2/T1-T2) species; and
2) Some G3, G4 and G5 species that meet at least one of the following criteria:
    - declining significantly through all or a substantial part of their range
    - endemic to the ecoregion
    - disjunct from distant ecoregions
    - area sensitive (requiring landscape-scale sites to be viable)
    - other ecological/conservation value (e.g., aggregations of special concern, keystone species).

Experts used the criteria to remove species from the preliminary lists, but also to add species. They also provided new occurrence data for these species. In general, their suggestions were utilized in target selection (and, in as many instances as possible, goal setting).

Table 1. Number of Species and Ecological Community/Systems According to G-Rank

TROPICAL FLORIDA: Summary of Taxonomic Groups by G-rank									
Targets	**Vascular Plants**	**Non-Vascular Plants**	**Fishes**	**Herpetofauna**	**Birds**	**Mammals**	**Invertebrates**	**Ecological Communities**	**Total by G-rank**
G1/T1	16	0	0	1	0	0	2	2	21
G2/T2	40	0	2	1	0	1	4	6	54
G3/T3	44	0	1	5	3	1	5	15	74
G4	50	0	0	3	12	0	2	9	76
G5	25	0	3	4	17	12	0	1	62
GH/not tracked	10	0	0	2	3	0	0	10	25
Total #	**185**	**0**	**6**	**16**	**35**	**14**	**13**	**43**	**312**

Mark Deyrup, entomologist and insect conservationist at Archbold Biological Station, advised the Team not to hold an expert workshop to choose terrestrial invertebrate targets. He reasoned that because so little is known about the abundance and distribution of terrestrial invertebrates, it is difficult to know if they are truly imperiled and unwise to select conservation sites based on the few data that are available. An expert workshop was not held for terrestrial invertebrates, but aquatic invertebrates were addressed.

Overall, 269 species (Appendix II) and 43 ecological communities/systems (Appendix III) were selected as targets in the Tropical Florida Ecoregion. Of these, 185 are plants. Many of the plant targets of the Tropical Florida Ecoregion are common in the Caribbean and/or Latin America (therefore are G4 or G5 taxa), but were selected as targets because in the United States they occur only in Tropical Florida (with a few extending northward into the Florida Peninsula Ecoregion). Not only are many of these tropical taxa declining substantially in a portion of their range (e.g., mahogany [*Swietenia mahagoni*] and lignum vitae [*Guaiacum sanctum*]), but they qualify as targets because they are disjunct. Many other taxa, such as orchids, ferns and bromeliads, are also disjunct and are of considerable conservation value in terms of the overall biodiversity of the Tropical Florida ecoregional flora. For these reasons, then, such taxa were typically included as targets.

Ecological Communities/System Classification and Target Selection

The ecological community/system classification used in the Tropical Florida Ecoregional Plan was devised by a group of experts with many years of direct experience with these communities in the field. The classification devised and adopted for this plan represents a hybrid classification between the natural communities initially developed by the Florida Natural Areas Inventory (i.e., Heritage Program) and the ecological groups developed by The Nature Conservancy's Southeast Conservation Science (SCS) ecology staff.

Table 2. Number of Species and Ecological Community/System Targets Selected for the Tropical Florida Ecoregion by Major Taxonomic Group.

TARGET GROUPS	Tropical Florida
Plants	185
Invertebrates	13
Fishes	6
Amphibians & Reptiles	16
Birds	35
Mammals	14
Ecological Systems	43
TOTAL	**312**

Community and system targets in this ecoregional plan are represented by ecological groups, defined by the experts consulted as identifiable units of vegetation that occur repeatedly on the Florida landscape. Development of these groups allowed inclusion of the full complement of aquatic communities (not all are included in The Nature Conservancy Plant Association Classification), sometimes used in ecoregional planning. Additionally, use of the FNAI natural communities, where possible, was intended to avoid confusion among the numerous conservation partners already familiar with this classification. The FNAI classification system is well integrated into both Florida Chapter and partner programs, and augmenting that system with underrepresented aquatic communities and ecological systems seemed both most clear and efficient. The final classification used in this plan is presented in Appendix III.

Goal Setting

The numeric goals adopted by this planning effort were based on those suggested in *Designing a Geography of Hope*, 2nd edition (Groves et al., 2000), primarily due to the absence of any more scientifically defensible or definitive information hypothesizing how many populations are required to ensure the persistence of a given species within an ecoregion or other planning unit. This minimum standard is based on the work of the Florida Fish and Wildlife Conservation Commission in their *Closing the Gaps* report (Cox et al., 1994). Their data represent some of best and most thoroughly researched population goals for ensuring the persistence of species on the landscape. Their recommendation is that 10 populations of a given species need to be conserved to provide that species with a >90% probability of persisting for 100 years; these figures were extrapolated to ecological communities/systems in this plan.

Setting Conservation Goals for Species

For each target species with a global rank of G1 through G5, a goal of 10 viable occurrences was set — the default goal recommended in *Geography of Hope* (2000) by Groves et al.

Setting Conservation Goals for Ecological Communities/Systems

Conservation goals for natural communities were also set using the guidelines presented in *Geography of Hope* (Groves et al., 2000). A brief description of the methods used is provided below. Consult *Geography of Hope* for a more detailed explanation of each step of the goal-setting process.

The first step of this process assigned attributes of scale/pattern and range/distribution to each targeted community or ecological system. Three types of spatial pattern were recognized: matrix community or system, large-patch community or system, and small-patch community or system. Communities that form extensive and contiguous cover are categorized as matrix community types. These typically range in size from 2,000 to 500,000 hectares and are characterized by a complex mosaic of successive stages resulting from characteristic disturbance processes (e.g., southeastern longleaf pine forests). Large patch communities are associated with environmental conditions that are more specific than those of matrix communities, and that are less common or less extensive in the landscape under consideration (typically ranging in size from 50 to 2,000 hectares). Small patch communities form small, discrete areas of similar vegetation cover (typically 1 to 50 hectares). The specialized conditions of small patch communities, however, are often dependent on the maintenance of ecological processes in the surrounding matrix and large patch communities.

Following grouping by spatial pattern, each community/system was then attributed to one of five types of range-wide distribution patterns:

- restricted/endemic (occurs primarily in one ecoregion)
- limited (occurs in the ecoregion and a few other adjacent ecoregions)
- widespread (widely distributed in several to many ecoregions)
- disjunct (occurs in ecoregion as a disjunct from the core of its distribution)
- peripheral (more commonly found in other ecoregions).

The second step of the process utilized the matrix provided in *Geography of Hope* (shown below in Table 3) to select a numeric goal for each community or system based on its spatial pattern and rangewide distribution pattern. While it is recognized that this matrix was designed for communities in the Northern Appalachians Ecoregion — and the caveat is given that it should be used with caution outside of ecoregions that do not support communities similar to those of the Northern Appalachian Ecoregion — their goals were well conceived and deemed appropriate for the ecological community/systems of Florida. In the absence of any more convincing data with which to set other (either more expansive or restrictive) goals for the sound conservation of ecological systems, it was decided to adopt the numerical goals shown below.

Matrix communities required fewer occurrences than patch communities. However, they also had to meet a size threshold that distinguished larger sites where these communities may still operate as a functional matrix to support dependent species and provide sufficient context for patch communities from small, less viable remnants. The area goal for matrix communities was a minimum of 2,000 ha (4,942 acres). Although this goal could have been larger, habitat fragmentation has reduced once common matrix communities such as sandhill, dry prairie, and even pine flatwoods into isolated and frequently small fragments. A threshold of 2,000 ha was considered to be a reasonable compromise that would still legitimately separate those sites more likely to provide feasible conservation opportunities for matrix communities and intact landscapes from smaller ones.

Table 3. Criteria used for setting goals (number of occurrences) for each ecological community type in the ecoregion (adapted from Groves et al., 2000).

	Matrix	Large Patch	Small Patch
Restricted/Endemic	10	18	25
Limited	*	9	13
Widespread	*	5	5 or 6
Disjunct	*	*	*
Peripheral	*	*	*

* These categories are not applicable to the Tropical Florida Ecoregion

In addition to setting a higher size threshold for considering a matrix community viable, and because many ecological communities/systems did not fit well into either the large or small patch categories, this plan often used a combination "small/large patch" category. In such cases, the goal was set at a number intermediate between the two default goals in an attempt to provide an analogous measure of protection to the biodiversity captured by these coarse-scale targets (see Appendix VI for actual goals used). In no case did the goal for the ecoregion drop below five occurrences.

The final step in the goal-setting process for ecological groups was geographic stratification of occurrences, so that the portfolio would conserve a more diverse set of examples of each community-type across the ecoregion. Stratification, recommended in *Geography of Hope*, enhances the effectiveness of the coarse-filter approach by increasing the probability that the full array of non-targeted species will be conserved. For example, conservation of pine rockland habitat in each subunit of the ecoregion (called subregions) is likely to conserve a more diverse set of pine rockland insects (which have localized distributions) than if the habitat were only conserved in one portion of the ecoregion. The minimum goal was one occurrence per suitable subregion, increasing to three per suitable subregion for restricted or endemic systems (see Appendix VI for subregional goals). Subregional boundaries were prepared by the Southeast Conservation Science Department (Map 3) and were based on US Forest Service subsections (Key's et al., 1995).

Assessing Viability

The next stage of portfolio design was the assessment of the viability of populations and community occurrences. In the Tropical Florida Ecoregion viability (the ability of a species to persist for many generations or an ecological system to persist for long periods of time) was determined as follows:

- By reviewing information in the existing natural heritage database compiled by the Florida Natural Areas Inventory;
- By reviewing that data with panels of experts; and
- By using an innovative viability model developed at the University of Florida.

More specifically

- The project team evaluated Heritage data (Florida Natural Areas Inventory or FNAI) points for some 3,760 Element Occurrence (EO) Records (Map 4). EO ranks were the preferred method used to assess the viability of both community and species occurrences. These ranks incorporate size, condition, and landscape context of a population or community in an assessment of quality and viability. EOs are ranked "A, B or C" with "A" ranked occurrences being the most viable.

These rankings and the other viability assessments used in the plan are, of course, predictions of what is likely to happen; nothing is certain in the complex world of ecosystem dynamics.

However, only a small percentage of the documented occurrences within the ecoregion have EO ranks. For example, only 16% of species records (but 59% of community records) had an EO (i.e., viability) rank of any kind. Furthermore, it was decided that records without an observation date, or which had a most recent observation date greater than 20 years old, could not be relied upon to accurately determine viability. EORs falling into this latter category amounted to 24% of all species and 33% of all ecological communities in the FNAI database.

- When EO rankings were lacking or insufficiently reliable, a careful examination and consideration of the EO Record's data fields were relied upon to make a determination of viability. This was coupled with expert knowledge of the populations and expert opinion about numbers of individuals, their reported health, status of the community (i.e., species composition, community structure and ecological integrity), and overall management of habitat necessary to support a viable population. For many plant occurrence records in Tropical Florida with observation dates earlier than 1980, there was access to Institute for Regional Conservation data — a private database with very recent occurrence information for hundreds of public and private lands throughout the ecoregion. These data were used by the experts to supplement viability assessments.
- An innovative contribution made by this plan to viability analysis is a viability model developed by the University of Florida (UF) GeoPlan Center that was also used to determine the landscape context and viability for given points. This viability model used GIS data on relevant indicators of context and condition to assess viability for all EOs without EO ranks. Land cover/land use data, information on roads (including average daily traffic), exotic plant community locations, and water quality data were integrated into the model to create GIS indices assessing predicted viability. The GIS-based assessment provides a defendable surrogate method to allow the potential incorporation of hundreds — or even thousands — of EOs lacking ranks into an ecoregional plan.

While the GIS-based viability assessment can serve as a defendable means to assess landscape context and to some extent ecosystem or habitat condition, it is less suited for serving as an indicator of population size. As such, this model may be more suitable for evaluating ecological systems than species targets.

Three different indices were used within the GIS-based approach depending on the type of species or ecological group in question: terrestrial, aquatic, and occurrences depending upon both aquatic and terrestrial habitat. The terrestrial viability index was applied to all truly terrestrial species and ecological communities. The aquatic viability index was applied to species that were specifically aquatic or most dependent on an aquatic life stage (such as all fish species and all aquatic invertebrates). The mixed habitat index, a simple combined average of the terrestrial and aquatic indices, was created for species dependent on the integrity of both aquatic and terrestrial system components (such as wading birds and shorebirds). Sea turtles were handled differently: nesting sites were assessed using the terrestrial index and foraging sites were assessed using the aquatic index. Each of the indices are described in more detail below.

1) **Terrestrial Viability Index**: The terrestrial viability index was based on information about roads, land cover/land use, and exotic plant infestations. The primary assumption for this index is that areas with the highest percentage of intact habitat, lowest road densities, and furthest away from major roads, intensive development, high-human population densities and areas dominated by exotic plants are much likely to support functional or viable ecological systems (see Table 4). Altogether, seven parameters were evaluated.

   Land cover/land use data (ca. 1995) from four of Florida's five Water Management Districts (developed using both Landsat imagery and aerial photographs) were used to assess the intensity of land use throughout the ecoregion using neighborhood analyses in ESRI's Arc-Info GRID module. The window/neighborhood size used for all of the land use intensity indices was one square mile. The land use classification was divided into four general categories: Category 0 land use (natural communities); Category 1 land use (low intensity land uses such as pine plantations and ranchlands); Category 2 land use (moderate intensity land uses including improved pasture, croplands, citrus groves, etc.); and Category 3 land use (higher intensity land use including residential, commercial, and industrial development).

   The first set of parameters was created to assess the density of Category 1, 2, and 3 land use respectively. The density of all roads, a fourth parameter, was calculated using 1:100,000 TIGER roads and the line density function in GRID with a one kilometer search radius. Next, the distance from major roads was created from the Florida Department of Transportation's major roads data using all roads with average daily traffic counts exceeding 2,500 trips per day, which is half of the threshold considered critical for roads experiencing higher levels of road kills and other impacts such as road noise and higher pollution levels. Distance from Category 3 land use (high intensity) was created using the Water Management District land use data described above. The seventh parameter, distance from exotic plant communities, was created using the exotic plants class from the Florida Fish and Wildlife Conservation Commission's statewide land cover map (30-meter Landsat-based). To create the cumulative index, all individual parameters were averaged together with none weighted. The final result was an index with rankings ranging from 1 (highest integrity) to 5 (lowest integrity).

2) **Aquatic Viability Index**: The aquatic viability index was created using two of the same parameters (road density and distance from intensive land use). However, four additional ones were created to specifically assess potential impacts to water quality and potential disruption of important aquatic ecological processes.

   First, two-kilometer buffers were created around all dams and all identified pollution discharge sites within the ecoregion. All areas within the two-kilometer buffer were given a low ranking and all areas outside these buffers were given a moderate (or neutral) ranking for these two parameters. Fourteen-digit HUCs were used to assess the intensity of land uses within watersheds: watersheds harboring higher percentages of intensive land uses received the lowest ranks. For the last aquatic parameter, two components of a watershed-based assessment of existing water quality, and water quality trends from the Florida Department of Environmental Protection, were combined to create a single water quality value, with existing water quality status receiving a weight of 0.8 and water quality trend receiving a weight of 0.2. All of these indices were then combined to create a cumulative aquatic viability index with rankings ranging from 1 (highest integrity) to 5 (lowest integrity).

3) **Mixed Habitat Viability Index**: The viability of occurrences dependent upon both aquatic and terrestrial habitats was a simple combination of the terrestrial and aquatic viability indices. Both indices were combined and then divided by two to create a new averaged index with rankings ranging from 1 (highest integrity) to 5 (lowest integrity).

Table 4. Data and Criteria Used in Designing Viability Model and Indices

Terrestrial Viability Rank:	**Distance from Cat. 3 land use**	**Density of Cat. 3 land use**	**Density of Cat. 2 land use**	**Density of Cat. 1 land use**
1 = better	> 5000 meters	< 2%	< 10%	< 25%
2	<= 5000 meters	>= 2%	>= 10%	>= 25%
3	<= 1000 meters	>= 10%	>= 40%	>= 50%
4	<= 500 meters	>= 20%	>= 60%	>= 75%
5 = worst	<= 100 meters	>= 30%	>= 80%	
Terrestrial Rank continued:	**All road density**	**Distance from major roads**	**Distance from exotic plant communities**	
1 = better	<= 0.5 mile/sq.	> 5000 meter	> 5000 meters	
2	<= 1 mi/sq. m	<= 5000 meter	<= 5000 meters	
3	<= 2 mi/sq. mi	<= 1000 meter	<= 1000 meters	
4	<= 3 mi/sq. mi	<= 300 meters	<= 500 meters	
5 = worst	> 3 mi/sq. mi	<= 100 meters	<= 100 meters	
Aquatic Viability Rank:	**Distance from Cat. 3 landuse**	**Dam Buffers**	**NPDES Buffers**	**All Road Density**
1 = best	> 5000 meters			<= 0.5 mile/sq.
2	<= 5000 meters			<= 1 mi/sq. mi
3	<= 1000 meters	Not w/in 2 km.	Not w/in 2 km.	<= 2 mi/sq. mi
4	<= 500 meters			<= 3 mi/sq. mi
5 = worst	<= 100 meters	Within 2 km.	Within 2 km.	> 3 mi/sq. mi
Aquatic Rank Continued:	**Land Use Intensity within Basins**	**Combination of two indices:**	**Weight = 0.8 Watershed Qual. Average Status**	**Weight = 0.2 Watershed Qual. 10yr trend**
1 = best	*** see below		Good	Much better
2	***			Better
3	***		Fair	Stable
4	***			Worse
5 = worst	***		Poor	Much worse

***To create this ranking (Land Use Intensity within Basins), Water Management District land use categories were reclassified to a 0 to 3 scale, where 0=native, 1=low impact to water quality, 2=moderate impact on water quality, 3=high impact on water quality. Then the rank was calculated as: (%cat0 in basin * 1 + %cat1 in basin * 3 + %cat2 in basin * 4 + %cat3 in basin * 5) / 100.

To summarize, both EO ranks and the modeled ecological integrity/viability ranking were used to assess the viability of all Element Occurrences in a process with several steps:

1) Only Element Occurrence records with last observation dates from 1980 or more recently, were considered to be potentially viable.
2) For EOs with ranks, the EO rank was used exclusively to determine viability. Any occurrence with an EO rank of A, B or C was considered to be viable.
3) For all occurrences without EO ranks (and observed since 1980), two complementary criteria were required for the occurrence to be considered viable:

- The Element Occurrence had to have a GIS analysis-based ecological integrity/viability rank below the established threshold for the index (terrestrial, aquatic, or mixed) applicable to that occurrence. The threshold was set at 2.5 for all three cumulative indices on a scale from 1 to 5, where one has the highest potential integrity and 5 has the lowest. The threshold of 2.5 was delineated in two ways: a) the integrity of sites that received either ranks of 1 or 2 (on average) for each individual index (Table 4) were considered as having a good likelihood for high ecological integrity; and 2) known areas within the ecoregion were sampled informally to get an indication of what ranks areas considered to have high ecological integrity were receiving.

- Element Occurrences had to also overlap with areas serving as another specific indication of ecological integrity/viability. These areas included existing conservation lands, officially proposed conservation lands that have been rigorously evaluated for ecological significance, and Areas of Conservation Interest (ACI) or Potential Natural Areas (PNA) identified by the Florida Natural Areas Inventory. ACIs and PNAs were identified throughout Florida using aerial photography and ground-truthing to identify most of the significant natural areas remaining on private lands.

4) All viability assessments were subject to review by the experts associated with the planning process who used additional data sources to add viable occurrences.

The GIS-based approach was a useful supplement to EO ranks for assessing the viability of ecological systems where size, condition and landscape context could be more easily and accurately evaluated. For example, through all of the data sets available (Landsat and GAP vegetation classifications, land use and land cover data, SPOT satellite imagery, ACIs and PNAs, expert knowledge), it was generally possible to predict with a high degree of certainty whether a site was infested with exotics, had low or high human impacts, had hydrological disruption, or was negatively impacted by adjacent land uses, among other important factors of condition and landscape context.

While the methodology was designed not to overestimate the viability of any target or artificially inflate the conservation status of a given target, it is recognized that the viability of a significant number of occurrences in Tropical Florida may change quickly because of the small size of remaining habitat or the need for intensive management to maintain that habitat.

Finally, this viability analysis uncovered numerous data gaps and pointed to the need for the Heritage Program to collect more recent data and to update old records — especially for riverine, marine and estuarine targets such as freshwater fishes, sea turtles and manatees, among many others.

Portfolio Site Selection

After the target selection and goal setting processes, all available and relevant data were collected and assessed as part of the site selection process for portfolio development (see Table 7 in Information Management section for a list of these data sources). The primary steps to developing the portfolio are outlined below (and summarized in Figure 2), followed by more detail about the process:

1) Element occurrence records for all target species and ecological communities/systems were screened for viability as discussed above. Only those meeting minimum viability requirements were included.
2) All qualifying (i.e., viable) sites needed to meet ecological community/system goals were selected.
3) Species targets were then separated into two categories: 1) species which did not have enough viable occurrences to meet their goals, therefore requiring all viable occurrences to be included in the portfolio (referred to as AVO Species); and 2) species that had more than enough viable occurrences to potentially meet their viability goals (referred to as Discretionary Species).
4) All data available for AVO Species was examined to determine whether additional sites could be identified for better meeting their goals.
5) The sites selected to meet the goals for all targeted ecological systems and AVO Species were combined into an interim portfolio, and all viable occurrences of discretionary species within the interim portfolio were identified.
6) All available data was examined to determine whether additional sites were needed to meet the goals for Discretionary Species, and any needed sites were added to the final portfolio.
7) Finally, Strategic Habitat Conservation Areas for species and natural communities, other habitat models, recent data for rookery sites and shorebird aggregation areas data from the Florida Fish and Wildlife Conservation Commission, and other additional data (such as Florida Aquatic Preserves) were examined to determine whether there were other important sites that should be added to the portfolio.
8) Landscape connectivity needs were assessed and appropriate landscape linkages were added to create the final portfolio boundary.

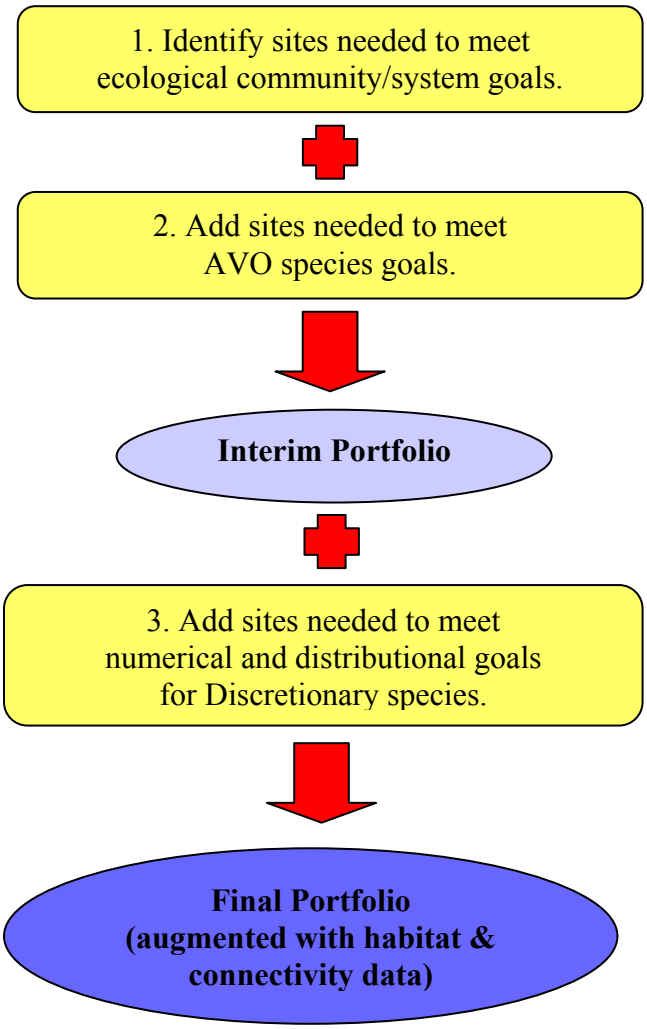

Figure 2. Portfolio Site Selection Process

Initial Selection of Sites for Ecological Systems

The identification of high quality, viable ecological communities/systems formed the basis for portfolio assembly. Heritage point data for ecological communities, Florida Fish and Wildlife Conservation Commission and Florida Gap Analysis Landsat-based land cover data, SPOT satellite imagery, land use/land cover data from the relevant Water Management Districts, and expert knowledge were all employed to delineate the portfolio sites for ecological communities. These sites, many of which are comprised of ecological systems encompassing a mosaic of several to many interrelated natural communities linked by such ecological processes as frequent fire, underlying edaphic factors, and hydro-physiographic gradients, were the initial building blocks of the portfolio.

As already mentioned, Florida Natural Areas Inventory (Heritage) element occurrences were the starting point for identifying high-quality ecological communities within the ecoregion. There tended to be a large percentage of occurrences with EO ranks, and the occurrences with high EO ranks (and the most recent observation dates) were used in preference to other potentially viable occurrences whenever possible. However, the availability of high quality land cover/land use data and imagery, the GIS-based viability assessment, and expert knowledge of specific sites with high quality occurrences allowed many other viable occurrences to also be selected. It did not matter if these communities/systems were in currently managed areas, proposed conservation lands or on private lands to which the Conservancy has or has not gained access over the years — all such lands, waters and ecological systems were evaluated equally.

Selection of Sites for Target Species
The next stage of portfolio design was the incorporation of populations of viable species/taxa into the portfolio as determined by assessing Heritage data points from the species EO records. Through this process, two sets of species targets were identified : 1) those for which there were not enough occurrences to meet default goals (the so-called "All Viable Occurrences" (AVO) Species — meaning that all viable occurrences had to be included in the portfolio in an effort to meet conservation goals) and; 2) those for which there were more than enough viable occurrences to meet default goals (referred to as "Discretionary" Species).

For all AVO species there was a two step process to determine whether there were any additional element occurrences that could be added as part of portfolio sites. First, FNAI Heritage element occurrence data was reexamined to see if there were additional occurrences that were close to viability thresholds or any additional information (such as EO data descriptions) that would allow additional occurrences to be considered viable. Then, any additional data was scrutinized using same observation date requirements and considering the GIS-based viability model results detailed above. Additional viable occurrences were added to the portfolio when possible. These additions came from a variety of sources (Table 7), including: wildlife observation data from the Florida Fish and Wildlife Conservation Commission, Florida Museum of Natural History occurrence records for fish and mussels, red-cockaded woodpecker data from several sources, recent rare plant occurrences from the Institute for Regional Conservation (as discussed above), and numerous others.

Discretionary Species Analysis
An interim portfolio was then created by combining all the sites that were needed to best meet the goals for ecological communities and AVO species. The interim portfolio was then compared to the viable occurrences of the Discretionary Species group, and any viable occurrences of this latter group that fell within the portfolio were automatically included.

For example, while a goal of just 10 occurrences was set for white-crowned pigeon (*Columba leucocephala* — a species found only in the extreme southern reaches of the ecoregion), the results of the viability analysis indicated that of 168 occurrences, 71 were viable. Because the conservation goal could potentially be exceeded, the pigeon was considered a Discretionary Species (and not an AVO species). Discretionary Species, then, were not used to drive portfolio site selection. First, community/system goals were used, and where this set of sites fell short, sites were added to help meet AVO goals. The set of sites needed to best meet both community and AVO goals was considered the interim portfolio and was then assessed to see how well it met Discretionary Species goals. In the case of the pigeon, the interim portfolio ended up capturing 66 (of the 71) viable occurrences; so the goal was met and no additional sites needed to be added to meet pigeon goals in the final portfolio.

Where conservation goals for particular Discretionary Species were not met by the interim portfolio, an evaluation of all other viable element occurrences outside the interim portfolio was performed to determine what additional sites/occurrences were needed to meet goals. In some cases — such as for wading birds — the plan appeared to exceed the goal, but then it was recognized that many of the EO records were for foraging areas only. Thus, the team considered it necessary to use rookery sites as the basis for conserving truly viable and sustainable wading bird (as well as other colonial nesting species) populations and for determining whether the numerical site goal was met. Additional rookeries were added to the portfolio as needed.

However, even though the numeric goal for a Discretionary Species was apparently met (or even exceeded), the plan may not have met distribution requirements for sub-regions, or covered the range of the species well enough. For instance, the majority of the included occurrences may have been located on a few existing, well-inventoried conservation lands. In these cases, additional

high-quality viable occurrences from farther afield were sought for inclusion and added to the portfolio. In a few instances, some exceptional, high quality occurrences that represented the best occurrences from a size, condition and functional landscape context (Poiani and Richter, 1999) were added to enhance the conservation efficacy of the entire portfolio.

Determining Site Boundaries

It is important to note that if a given community or species occurrence chosen for the portfolio occurred within the boundary of existing conservation land or private lands with conservation boundaries already designed (such as a proposed state of Florida CARL project, water management district SOR project, or FNAI Areas of Conservation Interest and Potential Natural Areas), the entire cadastral unit was selected as a portfolio site. Given the selection criteria for such protected or designated sites, this primary method for establishing the boundaries of portfolio sites was selected as an alternative to simply drawing circles around included occurrences. Element occurrences that were included in the portfolio, but did not overlap with any of these areas (which could happen for occurrences that received an acceptable EO rank), were then buffered by a kilometer to serve as a visual indication of the site location, but not as a specific portfolio site boundary.

Identification of Additional Sites

Certainly while allowing the team to make well informed decisions and choose between myriad alternatives, the wealth of relevant data in Florida for conducting ecoregional planning also proved time-consuming to review and manage. One of the challenges faced was how to incorporate the Florida Fish and Wildlife Conservation Commission's Strategic Habitat Conservation Areas (SHCAs) for target species and ecological communities. For species, SHCAs represent priority conservation areas needed to protect viable populations. For ecological communities (including pine rockland and tropical hammock), SHCAs are priority sites for conserving unprotected occurrences. All of the SHCAs are spatial areas (versus points) based on habitat models using Landsat-based land cover data for species, and the appropriate land cover class representing the remaining, unprotected patches for ecological communities. In the ecoregional planning process, it was decided to proceed with an element occurrence-based process in the primary portfolio site selection process, and then to use SHCAs to add additional sites for specific target species and ecological communities or add area to existing portfolio sites to better represent the spatial needs of various targets. In addition, other recently created habitat models were utilized where appropriate to help meet the viability goals for several species (Cox and Kautz, 2000). Finally, USFWS critical habitat was also incorporated into the portfolio. The following SHCAs and habitat models were used*:

Strategic Habitat Conservation Areas

Anastasia Beach Mouse
Atlantic Saltmarsh Snake
Southeastern Bat
Mangrove Fox Squirrel
Florida Black Bear
Black-whiskered Vireo
White-crowned Pigeon
Red-cockaded Woodpecker
Florida Panther
Sandhill Crane
Mottled Duck
Bald Eagle
American Kestrel
Limpkin
Scotts Seaside Sparrow
Southeastern Beach Mouse
Mangrove Cuckoo
Short-tailed Hawk
Florida Scrub-Jay
Snail Kite
Sandhill
Pine Rockland
Tropical Hammocks
Rare Plants

Habitat Models

Crested Caracara
American Crocodile
Saltmarsh Vole
Short-tailed Hawk
Florida Grasshopper Sparrow
Scotts Seaside Sparrow
Swallow-tailed Kite

USFWS Critical Habitat

American Crocodile
Cape Sable Seaside Sparrow
Piping Plover
Silver Rice Rat
Snail Kite

* Note: This list of Strategic Habitat Conservation Areas, Habitat Models and Critical Habitats includes those for targets occurring in both the Florida Peninsula and Tropical Florida ecoregions.

Almost all SHCAs, habitat models, and critical habitat were handled in the same fashion as element occurrence data for determining site boundaries. Generally, only areas overlapping with existing and proposed conservation lands, or FNAI Areas of Conservation Interest or Potential Natural Areas were added to the portfolio. Afterwards, models were assessed for their degree of overlap with the portfolio and additional habitat for selected species was then added to the portfolio in some cases.

Several other data sets were also used to develop the final portfolio. The Florida Fish and Wildlife Conservation Commission's recent statewide survey of wading bird rookery sites, which was received after the portfolio boundaries had been largely established, was used to identify other existing rookery sites most important to specific target species as well as the largest rookeries used by all native wading bird species that were not already represented in the portfolio. Sites identified as supporting large aggregations of wintering shorebirds were also added to the portfolio. Selected Florida Aquatic Preserves were added to the portfolio both to serve as sites representing seagrass ecological communities as well as surrogates for other estuarine and marine biological diversity. Finally, several rivers that had been identified as being most significant for freshwater aquatic biodiversity and for maintaining ecological connectivity were buffered and added to the portfolio where they were not already represented by larger portfolio sites.

Representing Critical Areas for Connectivity

The last set of sites added to the portfolio were those required for landscape connectivity. These sites (also maintained as a separate data layer) are particularly important for Florida panther and Florida black bear. Areas were identified by assessing the SHCAs for both the Florida black bear and Florida panther and determining which additional areas needed to be added to provide critical landscape connections as well as larger blocks of habitat (Beier and Noss, 1998). The plan also incorporated the Ecological Greenways Network Model results from the University of Florida, coupled with expert knowledge and known, intact habitat areas (ACIs and PNAs) and land use and land cover data to devise landscape linkage, or connector, portfolio sites. Although some improved pasture, citrus groves and pine plantations may be found in these Landscape Linkages, the resulting network consists of mostly natural, strategically located sites necessary to forge the interconnected landscapes required to conserve the entire biodiversity of the ecoregion.

Overall, emphasis was placed on landscape-scale sites (those sites larger than 25,000 acres), while at the same time the planning process did not ignore, small sites — even those required to help meet a goal for a single target if necessary. An interesting fact is that while 10% of total portfolio sites are for a single target, these sites amount to less than 1% of the total acreage in the portfolio.

Threats Assessment

In late 2002, the Conservancy added a new component, a threats assessment, to its standard ecoregional planning process. In 2003, an assessment of key threats to ecological resources in the Tropical Florida Ecoregion at each conservation area was conducted (Geselbracht & Torres, 2003). The process used to assess threats was pioneered by Southeast Division Science staff (Sutter et al., 2005) and tailored to fit the unique features of the Tropical Florida Ecoregion.

To streamline the process of threats evaluation, portfolio sites were assembled into conservation areas based on ecological criteria such as watersheds, similarity of community types and geographical proximity (Geselbracht & Torres, 2003). Furthermore, marine and estuarine portfolio sites and portions of sites were eliminated, because they will be more thoroughly addressed in the Central and South Florida Marine Ecoregional Plan that is currently under development by the Conservancy and expected to be completed in the Fall of 2004. Where portfolio sites spanned both terrestrial and marine/estuarine areas, only the portions of the sites below mean high water were eliminated from consideration. Assembling the portfolio sites into conservation areas greatly reduced the number of evaluations and ratings necessary to conduct the threats assessment. A threats assessment using the 65 identified portfolio sites would have required more than 1,365 discrete evaluations (65 multiplied by 21 standard threats), versus the approximately 210 (10 multiplied by 21) discrete evaluations necessary using the more streamlined conservation areas. The 10 conservation areas assembled from this above identified process are illustrated in Map 8, and from north to south are as follows:

- Okeechobee Marshlands and Rookery;
- Everglades Watershed;
- Lower East Coast Coastal Sites;
- Lower East Coast Remnant Pinelands;
- Scaly Stem Prairie;
- Model Lands Basin;
- Big Cypress Watershed;
- Estero Bay Watershed;
- Key Largo Limestone Rockland Hammocks; and
- Lower Keys Hammocks and Pinelands.

Sutter developed a standardized list of 26 ecological threats typically encountered in the southeastern United States (Table 5). Five of the standard threats were eliminated from consideration, due to their lack of relevance in the Tropical Florida Ecoregion (forestry conversion, forestry roads, conversion to pasture, livestock feedlots and agricultural conversion). Each threat was evaluated for its severity and extent at each conservation area using the scoring system illustrated in Table 6 and developed by Sutter. The severity rating was based on the level of impact the threat is having on area conservation targets. The extent rating was based on the number of conservation target occurrences affected by the threat at the site and the vulnerability of the affected targets. The extent to which current management activities abated the rated threats was also taken into consideration during the scoring.

Table 5. Threats Evaluated at Conservation Areas (Sutter, 2003).

Urban/Suburban Development	Industrial Development
Second Home/Vacation Development	Invasive Species - Horticulture/Pet Trade
Air-borne Pollutants/Nutrients	Invasive Species - Agriculture/Wildlife
Operations of Dams/Impoundments	Invasive Species - Accidental
Proposed Dams/Impoundments	Altered Fire Regime
Groundwater/Surface Water Withdrawal	Incompatible Resource Extraction
Channel Modification	Proposed Resource Extraction
Incompatible Water Quality	Recreation
Overexploitation of Species	Forestry Conversion*
Global Climate Change/Sea Level Rise	Forestry Roads*
Incompatible Agriculture Practices	Conversion to Pasture*
Incompatible Grazing Practices	Livestock Feedlots*
Incompatible Forestry Practices	Agricultural Conversion*
* Only 21 of the 26 standard threats identified as part of the Conservancy's Southeast Division Sequencing Conservation Action process are of consequence in south Florida. Threats not utilized in the Tropical Florida threats assessment are identified with an asterisk.	

Table 6. Scoring Conventions Used to Rate Threats at Each Conservation Area (Sutter, 2003).

Severity Rank	
Very High	Likely to destroy or eliminate (irreversibly) one or multiple targets within the next 5 years or currently a less severe threat that if not addressed immediately (invasive species, altered fire regimes) will become a **Very High** rank within next 5 years.
High	Likely to seriously degrade (possible to restore but difficult and costly) one or multiple targets within the next 5 years or currently a less severe threat that if not addressed immediately will become a **High** rank in the next 5 years.
Medium	Likely to moderately degrade (possible to reverse) the target within the next 5 years.
Low	Likely to slightly impair (easily reversed) the target within the next 5 years.
Percent Target Occurrences Affected by a Source of Stress (at the scored severity rank)	
Very High	Likely to impact >50% of the target occurrences at the conservation area.
High	Likely to impact one irreplaceable conservation target (as defined below) occurrence or 25 – 50% of the target occurrences at the conservation area.
Medium	Likely to impact 10 – 25% of the target occurrences at the conservation area.
Low	Likely to impact <10% of the target occurrences at the conservation area.
Irreplaceable = A species or community for which the only viable occurrence or occurrences are found in one conservation area.	

As the threats rating process proceeded, it became clear that the standardized scoring system developed for the entire Southeastern region of the United States required some fine-tuning to better apply to conditions in South Florida. As a consequence, the following Tropical Florida Ecoregion-specific rating rules were developed:

1. In many cases, the threat "incompatible agricultural practices" causes "incompatible water quality". To avoid double-counting the impacts of this threat, water quality impacts resulting from agriculture are addressed only under the "incompatible water quality" threat.
2. Global climate change impacts including sea level rise will continue to have substantial impacts on species and natural communities. The 5-year timeframe incorporated into the rating system in most cases will not allow the full extent of this threat to be captured. So, for this one threat, impacts are considered over a 25-year time frame rather than a 5-year timeframe.
3. Among the ecoregions in the Southeast Division, Tropical Florida has both a unique hydrologic regime as well as a uniquely modified hydrologic system. Consequently, some threats common in this ecoregion are not explicitly captured in the existing definitions. Specifically, the "surface water withdrawal" threat is captured in the groundwater withdrawal threat category.
4. For the most part in the Tropical Florida Ecoregion, second home/vacation home development is seamlessly integrated with urban/suburban development and so will be rated the same.
5. A "Percent Target Occurrence Affected" rating of "High" may also apply to situations where wide-ranging federally listed species are likely to be impacted by the threat.
6. Resource extraction does not include the over harvesting of species which is rated separately.
7. The threat "urban/suburban development" will only apply to direct building/clearing at a site, not associated threats such a fire suppression and water table lowering which are rated separately.

The evaluation process consisted of an extensive literature review, initial evaluation and rating made by core project team staff. Threat impacts and magnitude were described with quantitative information on the threat where available and appropriate for this ecoregion-scale analysis. The initial evaluation and rating were then reviewed by the Ecoregional Review & Assessment Team comprised of Conservancy Florida Chapter scientists, conservation planners and program managers.

Once the threat ratings were completed, threats were evaluated on both a site basis and across the ecoregion to determine the most critical threats at each scale. The threats assessment taken together with an evaluation of the biological significance of a site will allow Conservancy program managers to develop and prioritize appropriate conservation and management strategies across the ecoregion and at larger organizational scales (see Discussion, "Sequencing Conservation Action").

Information Management

The guidelines in *Geography of Hope* were followed as closely as possible concerning Information Management. As the sources of data included in the process illustrate (presented below as Table 7), the team utilized data and information from a wide variety of sources. One variation from that recommended in *Geography of Hope* was the hiring of a contractor with much expertise and experience in collecting, storing, and analyzing geographically-referenced data who was not a Conservancy employee. Tom Hoctor, a doctoral candidate in the Department Wildlife Ecology at the University of Florida and an employee of the University's GeoPlan Center was retained to perform the GIS-based analyses. He is a landscape and vertebrate ecologist with a proven record in landscape planning and analyses, having worked on the Ecological Greenways Model Network and on an EPA-funded ecological analysis of the Southeastern United States. Wendy Caster, Conservation Biologist in the Tallahassee Field Office of the Florida Chapter of The Nature Conservancy, was designated as the secondary GIS/Data Manager.

As noted in the introduction, Florida has been subjected to many conservation analyses over the past decade. This planning process was fortunate to use information generated by these previous analyses. Data came from the following sources (Note: we had a formal Memorandum of Understanding established between the Heritage Program and the GeoPlan Center through which the former entity supplied all of their point data in the Biological Conservation Database to the latter entity for analysis.):

Table 7. Data Sources Used in Developing the Tropical Florida Ecoregional Portfolio

- Florida Natural Areas Inventory (FNAI) Element Occurrence records
- FNAI Areas of Conservation Interest and Potential Natural Areas
- Florida Museum of Natural History Element Occurrence records for fish and mussel species
- Florida Fish and Wildlife Conservation Commission (FWC) Element Occurrence records for fish species
- FWC Wildlife Observation Database Element Occurrence records for all vertebrate species
- Gann and Bradley South Florida Rare Plant Element Occurrence database
- Water Management District Land Use and Land Cover (FLUCCS classification)
- Ecological Greenways Network model results
- SPOT satellite imagery as provided by the water management districts
- FWC black skimmer (*Rynchops niger*) nesting records for 1998-1999
- Florida kingsnake (*Lampropeltis getula floridana*) occurrence records from University of Florida Department of Wildlife Ecology and Conservation (WEC) graduate student, Kenny Krysko
- Audubon's crested caracara nesting records from Dr. Joan Morrison, Trinity College (and former UF WEC graduate Student)
- Aquatic invertebrate (mayflies) element occurrence data from Dr. Manny Pescador, Florida A&M University
- Aquatic Invertebrate element occurrence data (odonates) from Jarel Daigle, Florida Department of Environmental Protection
- Red-cockaded woodpecker (*Picoides borealis*) data from Randy Kautz, FWC
- Red-cockaded woodpecker data from Diana Swan, UF WEC graduate student
- Tiger salamander (*Ambystoma tigrinum*) element occurrence data from Paul Moler, FWC

- Wading bird rookery 1999 survey data from Randy Kautz, FWC
- Large winter shorebird aggregation site data from Randy Kautz, FWC
- Round-tailed muskrat (*Neofiber alleni*) data from Dr. Dave Maehr, University of Kentucky and Mary Barnwell, Florida Southwest Florida Water Management District
- Short-tailed hawk (*Buteo brachyurus*) and American swallow-tailed kite (*Elanoides forficatus*) data from Ken Meyer, UF WEC
- Florida scrub-jay (*Aphelocoma coerulescens*) data from Dr. Brad Stith, former UF WEC graduate student
- Landcover data from Randy Kautz, FWC
- Landcover data from Leonard Pearlstine, UF, Florida GAP Analysis Project
- Areas of Conservation Interest and Potential Natural Areas from Florida Natural Areas Inventory
- Strategic Habitat Conservation Areas from Randy Kautz, FWC
- Vertebrate habitat model results from Randy Kautz, FWC
- Conservation lands data from Florida Natural Areas Inventory
- Conservation lands data from the UF GeoPlan Center
- Aquatic Preserve data from the Florida Department of Environmental Protection
- Water quality data from the Florida Department of Environmental Protection
- Dam location data from the Florida Department of Environmental Protection
- 1:100,000 and 1:24,000 scale hydrology data from the U.S. Geological Survey
- 1:100,000 scale road data from the U.S. Geological Survey

Where possible, all data were collected in an electronic format and imported into an expanding database. As noted above, a rigorous review of all data was performed and historic records, non-viable population and occurrence records were eliminated. The team chose not to revise viability ranks, as much of this would have been speculative in the absence of further data, and EO rank specifications were often not available (The Nature Conservancy, Element Occurrence Data Standard, 1999). Complete gaps in data presented another challenge. For example, there were significant data gaps for marine targets, but it was necessary to move ahead with the data available. The team attempted to collect some of these kinds of data throughout the process, but realized that many of the agencies supplying this data had not performed their own analyses and that less than adequate data were available. Point data, SHCAs and expert opinion were the best available information for identifying the highest priority sea turtle nesting beaches. In some other cases, such as the coral reef ecological system (for which there is a paucity of Heritage point data) it was not feasible to collect and analyze all relevant and available data — yet several coral reefs are known to be included within the large, marine portfolio sites for Tropical Florida. Data gaps of this kind will be addressed in the marine ecoregional plans under development.

As implied, a centralized ecoregional database at the University of Florida's GeoPlan Center was established. All tabular data were imported into an Excel database and were linked to the spatial data in ArcView attribute tables. In collecting, managing, analyzing, and storing the myriad data layers, the team included as standard data fields all of those fields of information required for national roll-up purposes. For analysis, GIS ArcView shape files (and ArcInfo coverages) were linked to mapped data — both points and polygons — that were selected for the portfolio. For example, when a site is queried the GIS files are linked to tabular information that allow one to determine what targets occur at that site or where occurrences of target species or ecological systems are located within the portfolio.

Once the final portfolio was identified, so began the process of generating maps and tables (see Maps and Appendices), documenting the planning process, recording methodological assumptions, identifying significant data gaps, and generating metadata that document the content, source and reliability of the data products. Copies of the completed plan will be archived and distributed, including text, tables, maps and other pertinent information.

- Electronic copies of the final plan and a GIS shapefile of the final portfolio will be distributed and/or made available (on CD-ROM) to: The Nature Conservancy offices in Florida, University of Florida GeoPlan Center, Partners and Stakeholders, the Conservancy's Global Priorities Group (in Arlington, Virginia) and Southern Region Science Staff (in Durham, NC).
- All source data, final analysis layers and final product layers will be archived on CD ROM at the Conservancy's Tallahassee Field Office, Florida Chapter Office (Altamonte Springs), Southern Region Science office and the University of Florida GeoPlan Center.

III. RESULTS

Meeting Conservation Goals

The Tropical Florida Portfolio consists of 65 portfolio sites (or Areas of Biodiversity Conservation Significance), encompassing 4,353,072 acres or about 70% of the total lands and waters within the ecoregion. The portfolio is presented in Map 5 and includes 23 landscape-scale sites (those larger than 25,000 acres; see Figure 3). The portfolio also exhibits a high degree of landscape connectivity.

Terrestrial-based sites account for 70% of the portfolio, while aquatic systems (freshwater, estuarine and marine) account for 30%. Areas managed for conservation ("managed areas") total 4,255,594 acres (61% of the ecoregion — very high compared to the state as a whole) of which 4,178,960 acres (98%) are within the portfolio (Maps 6 and 7). These managed areas are owned and managed by public and private entities, primarily the National Park Service and South Florida Water Management District (Map 7 and Table 6). Existing managed areas (including waters) account for 85% of the portfolio, while proposed conservation lands (3%), other public domain waters (2%) and private lands (10%) account for 758,145 acres (or 15%) of the total portfolio.

At least 33 data sources (in addition to seven expert workshops) were used to select the targets within the ecoregion. The database of the Florida Natural Areas Inventory was the primary source for the selection of targets and 3,760 EO records were individually examined during the planning process. The total number of targets for the Tropical Florida Ecoregion included 185 taxa of plants, 6 taxa of fish, 16 taxa of herpetofauna, 35 taxa of birds, 14 taxa of mammals, 13 taxa of invertebrates and 43 ecological systems (of which 18 are aquatic or marine). A total of 312 targets were therefore chosen for the ecoregional analyses and augmented by SHCAs.

As stated, the number of portfolio sites totaled 65, ranging from five acres to 904,916 acres (Figure 3). Goals were met for the following taxonomic categories: 40 plants (21%), zero fish (0%), 3 herpetofauna (19%), 21 birds (60%), 4 mammals (29%), zero invertebrates (0%) and 15 ecological systems (35%) (Table 10). Please refer to Appendices IV (plants), V (animals) and VI (ecological systems) for more a more precise accounting of the data.

Portfolio sites were grouped into 10 larger conservation areas (Map 8) for the purposes of identifying threats and strategies. Based on an analysis of their contribution to ecoregional conservation goals and threat status, seven of these areas were identified as high priority conservation action sites, requiring immediate implementation of conservation strategies. In addition, a number of land acquisition focus areas have been identified as important to implementing portfolio conservation (see Discussion section on "Ecoregional Level Conservation Strategies"). Although the portfolio sites have been grouped into larger conservation areas for strategic purposes, it is useful to consider the size distribution of the individual portfolio sites as a reference for further, more detailed, planning (see Figure 3; Appendix VII for acreage by individual site).

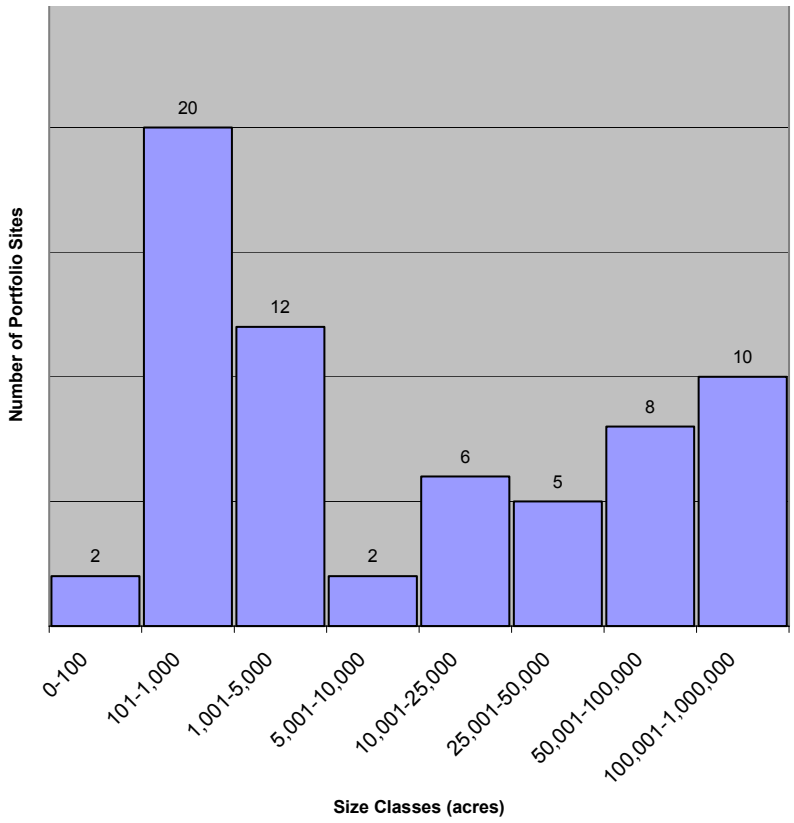

Figure 3: Size Class Distribution of Portfolio Sites

Of the 312 conservation targets, 219 (70%) had at least two or more viable occurrences captured within a portfolio site. These included 131 plants, 3 fishes, 12 herpetofauna, 32 birds, 8 mammals, 7 invertebrates and 26 ecological communities/systems.

One hundred fourteen (114) targets are considered globally imperiled (G1-G2, including T1-T2 taxa), including 72 plants, 2 fishes, 7 herpetofauna, 3 birds, 12 mammals, 10 invertebrates and 8 ecological system/communities. Thirty of these (26%), including 22 plants, zero fishes, zero herpetofauna, 1 bird, 4 mammal, zero invertebrates and 3 ecological community/system targets (scrub, pine rockland, subtropical seagrass bed) met their conservation goals. Despite meeting its goal scrub is highly imperiled, since many of the remaining sites are relatively small and occur in southwest Florida where the rapid growth of Naples and Ft. Myers threatens to destroy them within the next few years. The pine rocklands also consist of mostly very small sites that require intensive management in an urban setting to be maintained, but are critical remnants of a G1 community supporting numerous endemic species.

Broken down by coarse ecological types there are eight freshwater aquatic sites, 32 marine sites and 71 terrestrial/other sites in the portfolio. Freshwater aquatic sites encompass freshwater fish, invertebrate, and ecological community/system targets. Marine sites include all truly marine species (sea turtles and some fish targets) and all marine ecological communities/systems (including estuarine/marine wetlands), as well as birds that are strictly associated with marine ecosystems (e.g., black skimmers, oystercatchers, brown pelicans). Terrestrial sites include all other upland species and ecological communities/systems and all wetland species that could not be classified as strictly aquatic. Appendix VIII provides the number and list of targets captured at each portfolio site (referenced by site number).

Threats Assessment

Using the rating system described in the Methods section, each threat was evaluated at each conservation area for severity and extent. Threats were then given a single score based on these severity and extent ratings. The process mimics one developed earlier by Conservancy scientists for site conservation planning (Low, 1999), the scoring for which is illustrated below in Table 8. The assigned threats ratings and combination scores for each conservation area are provided in Table 9. A detailed analysis and the rationale for selecting the assigned rating scores can be found in the document, *Tropical Florida Ecoregion: Assessing Threats and Sequencing Conservation Action* (Geselbracht & Torres, 2003).

Table 8. Overall Threats Rating Based on Severity and Extent Scores (from Low, 1999)

	PERCENT TARGET OCCURRENCES AFFECTED (EXTENT)			
SEVERITY	**Very High**	**High**	**Medium**	**Low**
Very High	Very High	High	Medium	Low
High	Very High	High	Medium	Low
Medium	High	Medium	Low	Low
Low	Medium	Low	Low	--

Table 9. Conservation Area Threats Ratings

Conservation Area:	Okeechobee Marshlands & Rookery			Everglades Watershed			LEC Coastal Sites			LEC Remnant Pinelands			Scaly Stem Prairies			Model Lands Basin			Big Cypress Watershed			Estero Bay Watershed			Key Largo Limestone Rockland Hammocks			Lower Keys Hammocks & Pinelands		
Total Acres	42,291			2,617,658			6,591			22,562			44			90,636			1,193,717			125,150			114,945			433,175		
% Ownership in Public:	86.1			92.8			49.6			38.2			100			46.5			76.7			25.8			72.8			77.2		
% Ownership in Private:				2.2			28.4			59.2			0			48.2			19.3			69.3			7.1			2.9		
% Ownership Native American:	0			4.8			0			0			0			0			0			0			0			0		
% Open Water:	13.9			0.2			22			2.7			0			5.3			4			4.8			20.1			19.9		
Total Target Occurrences:	11			520			47			488			1			21			360			88			340			483		
Threats:	**S**	**% TOs**	**score**	**S**	**% TOs**	**score**	**S**	**% TOs**	**score**	**S**	**% TOs**	**score**	**S**	**% TOs**	**score**	**S**	**% TOs**	**score**	**S**	**% TOs**	**score**	**S**	**% TOs**	**score**	**S**	**% TOs**	**score**	**S**	**% TOs**	**score**
Urban/Suburban Development	L	L	X	H	M	M	M	L	L	H	H	H	L	L	X	H	M	M	VH	H	H	VH	H	H	H	H	H	H	H	H
Second Home/Vacation Development	L	L	X	H	M	M	M	L	L	H	H	H	L	L	X	H	M	M	VH	H	H	VH	H	H	H	H	H	H	H	H
Air-borne Pollutants/Nutrients	L	L	X	H	M	M	L	L	X	L	L	X	L	L	X	H	M	M	H	M	M	M	M	M	H	H	H	L	L	X
Operations of Dams/Impoundments	H	L	L	H	VH	H	L	L	X	na	na	X	na	na	X	H	H	H	na	na	X	M	L	L	na	na	X	na	na	X
Proposed Dams/Impoundments	na	na	X	L	L	X	na	na	X	na	na	X	na	na	X	na	na	X	na	na	X	M	L	L	na	na	X	na	na	X
Groundwater/Surface Water Withdrawal	L	L	X	M	M	M	na	na	X	H	M	M	H	M	M	L	L	X	M	L	L	H	H	H	na	na	X	L	L	X
Channel Modification	na	na	X	H	VH	H	na	na	X	na	na	X	na	na	X	H	VH	H	VH	H	H	M	M	M	na	na	X	M	L	L
Incompatible Water Quality	H	H	H	H	H	H	L	L	X	na	na	X	L	L	X	M	M	M	H	M	M	H	M	M	L	L	X	L	L	X
Overexploitation of Species	L	L	X	L	L	X	L	L	X	M	L	L	na	na	X	L	L	X	VH	H	H	L	L	X	M	H	M	M	M	M
Global Climate Change/Sea Level Rise	H	H	H	H	H	H	VH	H	H	M	M	M	M	VH	M	L	M	L	H	H	H	H	H	H	VH	H	H	VH	H	H

Conservation Area:	Okeechobee Marshlands & Rookery			Everglades Watershed			LEC Coastal Sites			LEC Remnant Pinelands			Scaly Stem Prairies			Model Lands Basin			Big Cypress Watershed			Estero Bay Watershed			Key Largo Limestone Rockland Hammocks			Lower Keys Hammocks & Pinelands		
Threats:	S	% TOs	score	S	% TOs	score	S	% TOs	score	S	% TOs	score	S	% TOs	score	S	% TOs	score	S	% TOs	score	S	% TOs	score	S	% TOs	score	S	% TOs	score
Incompatible Agriculture Practices	H	H	H	H	M	M	na	na	X	L	L	X	M	M	M	M	L	L	H	M	M	M	H	M	L	L	X	L	L	X
Incompatible Grazing Practices	na	na	X	L	L	X	na	na	X	na	na	X	na	na	X	na	na	X	M	M	M	L	L	X	na	na	X	na	na	X
Incompatible Forestry Practices	na	na	X	H	L	L	na	na	X	na	na	X	na	na	X	na	na	X	na	na	X	na	na	X	na	na	X	na	na	X
Industrial Development	na	na	X	na	na	X	M	L	L	L	L	X	na	na	X	M	L	L	L	L	X	L	L	X	L	L	X	M	H	M
Invasive Species - Horticulture/Pet Trade	H	H	H	VH	H	H	H	H	H	VH	VH	VH	M	M	M	H	VH	H	VH	H	H	H	H	H	H	H	H	H	H	H
Invasive Species - Agriculture/Wildlife	H	H	H	M	L	L	na	na	X	na	na	X	na	na	X	L	L	X	H	M	M	H	H	H	M	L	L	na	na	X
Invasive Species - Accidental	H	H	H	VH	H	H	H	H	H	H	M	M	na	na	X	M	M	M	H	M	M	na	na	X	H	H	H	H	H	H
Altered Fire Regime	M	M	M	M	H	M	L	L	X	VH	H	H	H	L	L	M	M	M	H	H	H	M	M	M	na	na	X	H	H	H
Incompatible Resource Extraction	na	na	X	M	L	L	na	na	X	na	na	X	na	na	X	H	L	L	M	L	L	M	M	M	L	L	X	na	na	X
Proposed Resource Extraction	na	na	X	H	M	M	na	na	X	na	na	X	na	na	X	H	M	M	M	L	L	M	H	M	na	na	X	na	na	X
Recreation	M	M	M	M	L	L	M	L	L	M	M	M	L	L	X	H	M	M	H	M	M	L	L	X	L	L	X	L	L	X

S = Severity; TO = Percent Target Occurrence Affected; Score = Overall Score.

IV. DISCUSSION

Portfolio Analysis

Fewer goals than originally envisioned were met. This is particularly surprising in an ecoregion with more than 70% of its area included in the portfolio. This same "problem" has arisen in other ecoregional plans (e.g., the Northern Appalachian Ecoregional Plan) where there are insufficient documented and viable occurrences to reach the ecoregional conservation goals. There appear to be several reasons contributing to this plan's difficulty in meeting goals:

- Disproportionately high numbers of targets in the Tropical Florida Ecoregion are genuinely rare, either as disjuncts or peripherals into the United States; particularly many of the orchids, bromeliads, ferns and some of the tropical hardwood trees. The general numerical goals developed may have been unrealistic, as many targets were required to have more occurrences than known from historical distribution.
- The Tropical Florida Ecoregion has been, and continues to be, significantly altered by human use and manipulation so that some species that were originally more widespread now have few remaining occurrences.
- Given rapid change within the ecoregion much of the data is old or insufficient.
- The threshold established for viability model ranks was designed to be conservative, making it more likely that viable occurrences would be excluded versus non-viable occurrences included.
- Two wide ranging species (Florida black bear and Florida panther) are doing poorly because of the effects of habitat fragmentation and gross changes in land use.

Even so, goals were successfully met for a number of natural communities. Both scrub and pine rockland met their numeric goals, partially because they have been intensively surveyed as part of the state of Florida's conservation land proposals of the CARL program and the South Florida Water Management District. The same may be said of tropical hardwood hammock, which has been the subject of intensive survey and conservation efforts. Expert knowledge of 12 occurrences of the Everglades matrix community, tropical swale, accounted for that goal being met; and similarly, eight expert-identified occurrences and two Heritage datapoints for mesic flatwoods resulted in this matrix system meeting its goal as well.

A number of plant species targets exhibit a similar profile. Twenty-two of the 31 plant species meeting their goals are either pine rockland taxa (14) or tropical hardwoods (8), again illustrating that ecological communities/systems that are more intensively surveyed are better able to meet their goals or the goals for species occurring within them. This is encouraging because for the many ecological communities/systems and species that did not meet their goals, it is possible that more intensive survey work will reveal additional viable occurrences.

Concerning one of the mammal targets, the Florida black bear, the plan did not technically meet the goal set with just seven viable occurrence records within the ecoregion. Unfortunately, point data cannot be considered equivalent to population-based data for species like the black bear. For example, it is known from recent studies that there is only a single subpopulation of this subspecies in the ecoregion. Clearly a different standard must be applied to determine a viability-based goal for such a wide-ranging species, requiring very large contiguous areas to support viable populations. In fact, the requirements needed to secure a viable population of the Florida black bear exceed any one

individual ecoregion within its range. Instead range-wide conservation strategies across ecoregional boundaries will be imperative. Tthis should not diminish, but rather underscore, the importance of identifying sites within an ecoregion for such species, regardless of whether a realistic viability goal can be met.

If an ecoregion plays a potentially significant role in conserving the overall habitat base to protect viable populations within a multi-ecoregion area, protection of such habitat is at least as important as fine-filter species considerations. The portfolio selection process attempted to identify and incorporate all of the important habitat contributing to protecting or restoring viable populations of both the Florida black bear and the Florida panther. After assembling the primary portfolio sites using standard occurrence based methods, the portfolio was assessed for gaps in habitat protection for these species using Strategic Habitat Conservation areas data from the Florida Fish and Wildlife Conservation Commission, the Florida Ecological Greenways Network from the University of Florida, and land cover/land use data. All areas needed to provide larger areas of suitable habitat and landscape linkages were then added to the portfolio. As a result, the portfolio essentially captures all of the land acquisition priorities recommended by the Florida Fish and Wildlife Conservation Commission in recent studies for Florida black bear and Florida panther.

In retrospect, goals should have been based on historical distributions and our best current understanding of viability for targets with few occurrences. The team considered reducing goals for historically rare species to the known number of occurrences, but the current state of inventory work is not sufficient to make this a scientifically credible approach.

The plan accepts the apparent failure to meet goals for these species; yet, this will not diminish the Conservancy's intent to protect as many viable occurrences as possible. While this may hold true for historically rare species, the lack of goal attainment in this ecoregion is largely due to the fact that whole ecological systems have been predominately destroyed through agriculture, housing and massive urbanization in many of the areas where the endemism was the highest (e.g., Miami Rock Ridge, Big Pine Key).

There are, however, several ways unmet goals can be attained in future iterations of this plan, or the gap can at least be narrowed: 1) increasing inventory efforts (note that 24% of all species EO records and 33% of ecological community records in the FNAI database were not used because they had no observation date, or an observation date more than 20 years old); 2) restoration or improved management (so that more occurrences eventually meet viability requirements); and/or 3) natural increases in quality and quantity over time.

It is also worth mentioning that the degree to which goals are met depends, in part, upon the standard or method used to assess target viability — more conservative approaches tend to result in fewer goals met. In this plan, a measure of "goals likely met" was assessed by applying another standard of potential viability. This was a subjective process where the viability assessments done by the FWC (Cox et al., 1994; Cox and Kautz, 2000), other ecological information, and expert opinion on each species were used to determine whether it was likely that the species would be viable within the portfolio if all sites were protected and appropriately managed. Based on this assessment, 159 species (59% of species targets compared to 25% using the plan's principal method; Table 10) are likely to have met their viability goal within the portfolio.

Table 10. Goal Achievement and Likely Goal Achievement by Taxonomic Group in Tropical Florida.

Taxonomic group	Total number of species	Number of species meeting goal of 10 occurrences	Number of species likely meeting viability goal within portfolio
- Fish	6	0 (0%)	4 (67%)
- Herps	16	3 (19%)	6 (38%)
- Birds	35	21 (60%)	28 (80%)
- Mammals	14	4 (29%)	5 (36%)
Vertebrates	71	28 (39%)	48 (68%)
Invertebrates	13	0 (0%)	2 (15%)
Plants	185	40 (21%)	66 (36%)
All species	**269**	**68 (25%)**	**159 (59%)**

Sequencing Conservation Action

In addition to the critically important goal of identifying a portfolio of sites to represent the biodiversity of an ecoregion, another goal of the Conservancy's ecoregional planning process is to prioritize conservation action among sites. Sutter (2003) has developed a methodology for this component of the ecoregional planning process in a project called "Sequencing Conservation Action". The sequencing process requires consideration of factors relating to:

- The information generated in the portfolio design and threats assessment stages of ecoregional planning, including:
  - The biological importance of sites as characterized by the number of conservation targets and other important ecological considerations recognized at the site (i.e., "Contribution to Ecoregional Goals").
  - Through the threats assessment stage of ecoregional planning, the relative magnitude of threats at each portfolio site as well as across sites (i.e., "Relative Threat Status").
- An assessment of the feasibility of accomplishing conservation at a given site including staff capabilities, staff relationships with key partners, availability of funding, effectiveness of ongoing management activities and the presence of unique opportunities (i.e., "Relative Conservation Opportunity").

Taken together these factors contribute to an assessment of relative conservation priority and allow conservation areas to be placed in one of four sequencing categories: "Now, Right Now", "Now", "Soon" or "Later". A second outcome of the sequencing process is the identification of foci for cross-cutting strategies, such as threats, ownership and ecological systems.

Table 11 lists the total number of conservation targets and the "High" and "Very High" threats at each of the 10 conservation areas in the Tropical Florida Ecoregion. Based on number of target occurrences alone, it is clear that the Everglades Watershed, Lower East Coast Remnant Pinelands, Big Cypress Watershed and the two Florida Keys conservation areas are highly significant. In addition to biological significance, conservation targets at each of these four areas are in danger of being significantly impacted by multiple threats. For these reasons, these five areas receive a "now, right now" conservation rating (Table 12).

Table 11. Summary of Targets and "High"/"Very High" Rated Threats at Tropical Florida Conservation Areas.

Conservation Area & No. of Target Occurrences	"High" Rated Threats (unless otherwise noted)
Okeechobee Marshlands & Rookery **Total targets = 11**	Incompatible Water Quality Incompatible Agriculture Practices Invasive Species – Horticulture/Pet Trade Invasive Species – Agriculture/Wildlife Invasive Species – Accidental Global Climate Change/Sea Level Rise Operation of Dams/Impoundments*
Everglades Watershed **Total targets = 520**	Operations of Dams/Impoundments Channel Modification Invasive Species – Horticulture/Pet Trade Invasive Species – Accidental Global Climate Change/Sea Level Rise Incompatible Water Quality
LEC Coastal Sites Total targets = 47	Global Climate Change/Sea Level Rise Invasive Species – Horticulture/Pet Trade Invasive Species – Accidental
LEC Remnant Pinelands Total targets = 488	Invasive Species – Horticulture/Pet Trade (rated "Very High") Altered Fire Regime Urban/Suburban Development Second Home/Vacation Development
Scaly Stem Prairie Total targets = 1	Only "medium" and "low" rated threats.
Model Lands Basin Total targets = 21	Channel Modification Invasive Species – Horticulture/Pet Trade Operations of Dams/Impoundments
Big Cypress Watershed Total targets = 360 Irreplaceable targets =	Channel Modification Invasive Species – Horticulture/Pet Trade Overexploitation of Species Altered Fire Regime Global Climate Change/Sea Level Rise Urban/Suburban Development Second Home/Vacation Development
Estero Bay Watershed Total targets = 88	Urban/Suburban Development Second Home/Vacation Development Groundwater/Surface Water Withdrawal Global Climate Change/Sea Level Rise Invasive Species – Horticulture/Pet Trade Invasive Species – Agriculture/Wildlife
Key Largo Limestone Rockland Hammocks Total targets = 340	Global Climate Change/Sea Level Rise Urban/Suburban Development Second Home/Vacation Development Invasive Species – Horticulture/Pet Trade

	Invasive Species – Accidental Air-borne Pollutants/Nutrients
Lower Keys Hammocks & Pinelands Total targets = 483	Global Climate Change/Sea Level Rise Urban/Suburban Development Second Home/Vacation Development Invasive Species – Horticulture/Pet Trade Invasive Species – Accidental Altered Fire Regime

Besides immediate threats, other factors influencing urgency ratings for the ecoregion's conservation areas include impacts on downstream conservation targets. For example, two sites with an intermediate number of conservation targets merit a "now" rating due to significant downstream impacts: Estero Bay Watershed and Model Lands Basin. The areas immediately offshore from these two conservation areas are ecologically rich and will be further described in marine ecoregional planning now underway by the Florida Chapter. Furthermore, at the Estero Watershed Conservation Area nearly 70% of the land area remains in private ownership, the highest percentage of any of the ecoregion's conservation areas. Protection of lands in the Estero Watershed and Model Lands Conservation areas will allow the migration of marine & estuarine species to higher ground in the face of predicted sea level rise. The remaining Conservation areas, Okeechobee Marshlands and Rookery, Lower East Coast Coastal Sites and Scaly Stem Prairie receive a "soon" urgency rating.

Table 12. "Now, Right Now", "Now" and "Soon" Urgency Ratings for Conservation Areas.

Urgency Rating	Conservation Area
Now, Right Now Conservation areas to be addressed immediately.	Everglades Watershed LEC Remnant Pinelands Lower Keys Hammock & Pinelands Big Cypress Watershed Key Largo Limestone Rockland Hammocks
Now Conservation areas to be addressed in the near future (3 to 5 years).	Estero Bay Watershed* Model Lands*
Soon Conservation areas that can be addressed in 5 to 10 years.	LEC Coastal Sites Okeechobee Marshlands & Rookery Scaly Stem Prairie

* These areas may be elevated to "now, right now" areas following completion of the Conservancy's Central & South Florida Marine Assessment which will document the importance of these areas to the continued health of significant downstream marine & estuarine resources.

It should be noted that Lake Okeechobee, the second largest, fresh water lake wholly within conterminous United States, was not selected as a portfolio site. Although the lake once helped to slowly feed waters into the Everglades — waters spilled over the southern rim and flowed through a vast pond apple (*Annona glabra*) swamp before passing into the sawgrass-dominated marsh of the Everglades — Lake Okeechobee is now a completely and artificially controlled water body. After the deadly hurricanes of 1926 and 1928, the Army Corps of Engineers constructed a massive earthen dike around the entire lake. The dike was coupled with the vast series of canals and water control structures that allows the water levels in the lake to be completely regulated. As well, there are now

many feet of highly contaminated muck on the lake bottom (both heavy metals and high nutrient levels) that originated from surrounding agricultural operations.

Although Lake Okeechobee does support many wading birds and some reptiles and it is important within the ecoregion and to Everglades restoration efforts, there are few occurrence data actually available that allow it to emerge as a biodiversity hotspot or be selected as a viable target.

To get at the second purpose of the sequencing process, identifying high leverage strategies to abate cross-cutting conservation threats, it is necessary to know "What are the most common high rated conservation threats?" and it is also helpful to know "Who owns the land where these threats are occurring?". In Table 13, the total number of conservation areas affected by "high" and "very high" rated threats are summed across the Tropical Florida Ecoregion and Table 14 lists the primary landowners of conservation areas described. Table 13 illustrates that invasive non-native species, water issues, global climate change and urban/suburban development are the most common threats across the ecoregion. Table 14 illustrates that the U.S. Department of the Interior, especially the National Park Service is, by a significant margin, the largest landowner of the Conservation areas under consideration (>50% of the portfolio). The state of Florida, particularly the South Florida Water Management District, is also a large conservation stakeholder/landowner in the ecoregion (approximately 18% of the portfolio).

The information summarized in Tables 11 through 14 provides a framework for developing a set of ecoregion level conservation strategies. In developing ecoregion level strategies, the Ecoregional Review and Assessment Team took into account the information summarized in these tables as well as ongoing management activities, likelihood of success, and other factors. Potential strategies that could add value to ongoing conservation efforts are described in the following section, organized by key threat.

Table 13. Sum of "High" and "Very High" Rated Threats at Conservation Areas Across the Ecoregion.

Threat	Total Sites Affected
Invasive, non-native species, horticultural	9
Invasive, non-native species, accidental	4
Invasive, non-native species, agricultural/wildlife	2
Invasives, general	9*
Global climate change/sea level rise	7
Channel modification	3
Incompatible water quality	2
Operation of dams/impoundments	2
Ground/surface water withdrawal	1
Water issues, general	5*
Urban/suburban development	5
Altered fire regime	3
Airborne pollutants and nutrients	1
Incompatible agricultural practices	1
Overexploitation of species	1

*Generalized threat categories are not double-counted at conservation areas.

Table 14. Primary Landowners of the Tropical Florida Ecoregion Conservation Areas.

Landowner	Acres	Percent of Portfolio (%)
National Park Service (DOI)	2,537,859	50.6
South Florida Water Management District (State of Florida)	904,381	18.0
Private, not conserved	501,581	10.0
U.S. Fish and Wildlife Service (DOI)	416,463	8.3
Florida Department of Environmental Protection	188,742	3.8
Florida Fish and Wildlife Conservation Commission	65,494	1.3
Florida Division of Forestry	37,148	0.7
Local government	11,709	0.2
Private, conserved (The Nature Conservancy, etc.)	9,141	0.2
U.S. Department of Defense	7,825	0.2
Other	340,487	<0.1
Total Portfolio Acres	5,020,830	100%

Ecoregion Level Conservation Strategies

Invasive Non-Native Species

These species are a very high threat across the ecoregion. While infestations of plant species are fairly well documented, assessment of the severity and extent of infestations of invasive, non-native animals and other major taxonomic groups are not nearly as advanced. Meanwhile, new problematic species are coming to the forefront on a continual basis and known problem species, in many cases, continue to be propagated and broadly distributed for sale. Many opportunities exist to better control this threat at local, state and federal levels, both through public and private action. Key opportunity areas for conservation action include the following:

- Requiring all plants and animals, etc. allowed into the ecoregion to be screened for potential invasive traits;
- Prohibiting the importation, propagation, distribution and sale of all non-native species identified as invasive.
- Requiring the removal and/or control of all species identified as invasive from both public and private property.

These measures represent a huge undertaking and an equally large level of opportunity to make significant progress. Some of these strategies are currently in progress at various levels of government. Tying management and eradication measures to tax incentives or public payment for some of these management and control activities can significantly enhance the effectiveness of these measures.

Global Climate Change

While climate change and associated sea level rise are widely accepted by the scientific community, there are still many unknowns regarding how these phenomena would likely impact species and natural communities in the Tropical Florida Ecoregion. Further analysis is needed to evaluate impacts on individual populations and communities as well as likely collective impacts on the ecosystem. This analysis will need to be completed before conservation practitioners can devise strategies to minimize the anticipated adverse impacts on ecological resources.

Water Issues

Altered hydrology and water quality concerns are significant threats in the ecoregion impacting at least two-thirds of the ecoregion's area. While many of the ecoregion's water issues are being addressed through the Comprehensive Everglades Restoration Plan, Everglades Forever Act, Modified Waters Plan, et cetera, the solutions are not complete and at best they are temporary in the face of increasing demand fueled by continuing urban/suburban development and population growth. Without legislatively mandated reservations for the natural systems that will persist through time, the Everglades, Big Cypress Watershed, Estero Watershed, Model Lands basin and other ecoregional resources will remain at risk. As noted above, a Central and South Florida Marine Ecoregional Assessment is now under-development by the Conservancy's Florida Chapter. A portion of this plan will document the impacts of excessive freshwater releases from Lake Okeechobee on the Caloosahatchee and St. Lucie estuaries and highlight the necessity for solutions that also include re-establishment of more natural flow patterns to these two estuaries.

Urban/Suburban Development
Upon review of potential ecoregion level solutions to this pervasive ecoregional threat, the Assessment and Review team concluded that the primary ecoregional strategy is support for continued state, federal, and local funding for conservation land acquisition. Such funding should support priority land acquisition projects at the following sites:

- **Corkscrew Regional Ecosystem Watershed** — At least 23 targets are known from this important site in southwest Florida. This site forms both a key habitat connector and watershed project that is critical to the protection of rare wildlife and plant species. It also links three established Managed Areas and protects the flows of water feeding the Florida Panther National Wildlife Refuge, Fakahatchee Strand and the Ten Thousand Islands. The site encompasses excellent examples of tropical strand swamp and hatrack cypress communities and supports numerous orchids, bromeliads and ferns that comprise much of the biodiversity of the area of Florida. Rapid habitat conversion for agriculture and residential development continue to threaten the ecological integrity of the site. The State of Florida's CARL program and the South Florida Water Management District are funding partners at the site.
- **Panther Glades/Twelvemile Slough/Caloosahatchee Escape** — This site is comprised of three smaller and adjacent sites — all recently proposed to the CARL program by The Nature Conservancy and now on their acquisition list. The site includes the most important remaining natural lands in southwest Florida for securing a viable Florida panther dispersal corridor from the Tropical Florida Ecoregion into the Florida Peninsula Ecoregion. Virtually all of the site is Priority I Florida panther habitat as identified by the U.S. Fish and Wildlife Service who has severed as a partner in conservation efforts at the site. There are several large private landowners within the site who conduct limited, yet viable, cattle ranching operations. The area is, however, increasingly threatened with habitat conversion for improved pasture, citrus cultivation and rural housing that will further fragment this significant and strategic system.
- **Belle Meade/Picayune Strand** — This site is a high priority for state acquisition partners, particularly the CARL program and the Florida Division of Forestry. It supports four of the most endangered epiphytic orchids in the ecoregion and at least 16 other targets, including both the Florida panther and the best remaining population of red-cockaded woodpeckers in the ecoregion (both are listed as federally endangered). The site lies within a watershed of regional importance for the health of the northern Ten Thousand Islands and Rookery Bay estuarine systems. The site also supports one of the two best remaining examples of the hydric flatwoods ecological system — reported to house the highest vascular plant biodiversity in Florida (Gleason, 1974). The site is one of the most threatened in the ecoregion because of the rapid encroachment of housing from the nearby City of Naples. This area has one of the fastest growing human populations in the United States.
- **Dade County Archipelago Pine Rocklands and Hammocks** — Although now consisting only of fragments on the South Florida landscape, this aggregated site is exceedingly important to conservation efforts in the Tropical Florida Ecoregion. Once covering at least 90,000 acres of southern Dade County (the still burgeoning Greater Miami metropolitan area), the slash pine-dominated pine rocklands — a unique, globally critically imperiled (G1) community type endemic to the ecoregion — and tropical hardwood hammocks of the site are exceptionally diverse. Supporting at least six federally endangered species/subspecies, these sites are under tremendous threat, not only from myriad invasive exotic plant species, but from intensive urbanization. Today, the pine rocklands exist as tiny fragments of 10, 20 and 40 acre parcels of

which 856 acres have been vigorously sought for conservation. In order to maintain their species composition and community structure, these sites require heroic management efforts, including prescribed fire in an urban setting. Fortunately, Miami/Dade County is a key partner in the protection efforts for this site with some 749 acres of this endemic community having been acquired at a cost of nearly $31 million.

- **Model Lands** — Lying along the extreme southeastern coast of the ecoregion is a vast mosaic of wet prairies, marl prairies, mangroves and low hammocks (both baygalls and tropical hardwood hammocks). Although portions are infested with invasive exotic plant species and have been ditched, the site is of prime importance to the continued ecological integrity of the lower portion of the Everglades (especially Everglades National Park) and to the watershed of Biscayne National Park and its imperiled estuarine system in southern Biscayne Bay. As well, the northern portion of the area supports a portion of the habitat required by the federally endangered American crocodile. It is threatened with further limerock mining and fragmented ownership patterns.
- **East Coast Buffer/Everglades National Park/Water Conservation Areas** (includes Florida Bay) — The northern and eastern portions of this site are thought by many to be the most critical to the Everglades restoration effort. Although growth from Miami and Ft. Lauderdale have continued to encroach into the Everglades, acquisition of the wet prairies, marl prairies and tropical swales of the East Coast Buffer are designed to provide a defined management boundary for the Everglades. Enormous numbers of wading birds use the site and Everglades National Park is a World Heritage Site. The site is also the stronghold for the federally endangered Cape Sabal seaside sparrow. The entire system is highly threatened by water quality and quantity issues (including a severe disruption of the natural hydroperiod critical to the maintenance of the functional integrity of the ecosystem). Both the control of invasive exotics and finding ways to restore the timing and quantity of water to Florida Bay — one of the most important, productive and economically lucrative estuarine systems in the ecoregion (and the United States) — are critical issues for the site.
- **Big Pine Key/Key Deer NWR/Coupon Bight** (including associated Lower Keys Pine Rocklands and Hammocks) — This site is critical to the survival of the federally endangered key deer (a diminutive subspecies of the Eastern white-tailed deer). Several other endemic vertebrate subspecies also occur in the site, including Lower Keys rabbit, Vaca Key raccoon and Lower Keys cotton rat. The area is a primary site for conserving the southern extent of the diverse pine rockland community, yet one that supports a flora different from mainland examples occurring near Miami. Numerous endemic and rare (peripheral to disjunct) plant taxa occur in this community including the federally endangered Big Pine tree cactus. The only known location of the Florida semaphore cactus occurs within a The Nature Conservancy preserve at the site. Overall, the site supports over 50 targets, but is being rapidly converted for housing with concomitant habitat loss, fragmentation and fire suppression.

Altered Fire Regime

Altered fire regime is a key threat to fire adapted upland communities in the ecoregion. Conservation and government partners would benefit from broader coordination of prescribed fire management and educational opportunities to build more regional experience in prescribed fire application.

The above strategies are broad and represent a tremendous amount of work. Significant conservation efforts are underway, especially through the implementation of the Comprehensive Everglades Restoration Plan and South Florida Ecosystem Restoration Task Force. However, numerous conservation opportunities remain and are critically important for protecting the full range of biodiversity within the Tropical Florida Ecoregion. It is hoped that the information contained in this report will serve as a useful guide to agency, non-governmental organizations and other entities involved with protecting the ecoregion's biological resources and will help to focus conservation efforts on key strategies, threats, and sites that will have the largest impact on achieving long-lasting ecological integrity in the Tropical Florida Ecoregion.

Action Sites

Action sites were identified through a combined assessment of the relative contribution of each conservation area to ecoregional goals and their relative threat status. Based on this assessment, conservation areas were categorized as "Now, Right Now", "Now", "Soon", or "Later", as shown in Table 12. Action sites for this ecoregion include: Everglades Watershed, LEC Remnant Pinelands, Lower Keys Hammock and Pinelands, Big Cypress Watershed, Key Largo Limestone Rockland Hammocks, Estero Bay Watershed and Model Lands (i.e., conservation areas listed as "Now, Right Now" in Table 12). The portfolio sites comprising these action sites are listed below in Table 15.

Table 15. Portfolio Sites Contained within the Action Sites

Conservation Area	Portfolio Site #
Everglades Watershed	
Loxahatchee NWR	6
Holey Land - Rotenberger	12
Central Everglades Native American Lands	15
Central Glades WCAs	16
Everglades National Park	30
Lower East Coast Remnant Pinelands	
NW Broward Flatwoods	18
Biscayne College Pineland	29
South Dade Pine Rocklands	34
Lower Keys Hammocks and Pinelands	
Bahia Honda State Park	49
No Name Key-Key Deer NWR	50
Big Pine Key-Key Deer NWR Conservation Complex	51
Little Torch Key Tropical Hammocks	52
Coupon Bight Aquatic Preserve	53
Newfound Harbor Keys Hammocks/Rock Barrens	54
Ramrod Key Tropical Hammocks	55
Lower Summerland Key Tropical Hammocks	56
Sugarloaf Key Conservation Complex	59
Saddlebunch Keys Conservation Complex	60
Boca Chica Naval Air Station Site	61
Key West Conservation Complex	62
Key West NWR	63
South Cudjoe Key Conservation Sites	57

Conservation Area	Portfolio Site #
Big Cypress Watershed	
Florida Panther Landscape Linkages	10
Panther Glades Macrosite	11
Big Cypress National Preserve	19
FL Panther NWR/Golden Gate Est./Picayune Strand SF	20
Western Collier Scrubby Flatwoods	21
Rookery Bay -Ten Thousand Is NWR	22
Fakahatchee Strand	25
Key Largo Limestone Rockland Hammocks	
Key Largo-Pennekamp Macrosite	38
Plantation Key Tropical Hammocks	39
Windley Key Tropical Hammocks	40
Upper Matecumbe Key Tropical Hammocks	41
Lignumvitae Key	42
Lower Matecumbe Key Tropical Hammocks	43
Long Key Conservation Complex	44
Grassy Key Rock Barrens	45
Fat Deer Key Rock Barrens	46
Vaca Key-Boot Key Conservation Complex	47
Estero Bay Watershed	
CREW Macro Site	9
N. Crew Flatwoods-Florida Panther Site	7
NW Collier County Habitat Mosaic	14
Estero Bay Conservation Complex	8
SW Lee County Natural Community Mosaic	13
Model Lands	
Model Lands & Southern Glades Save Our Rivers Projects	36

Communication Plan

This plan is intended both for the internal use of The Nature Conservancy and as a public document that will contribute to the body of knowledge for science-based conservation priority setting that continues to be so important in establishing the priorities for conservation investment by public agencies and private organizations in Florida. The plan will be distributed to Conservancy staff and to all the statewide and regional agencies engaged in conservation action in south Florida. It will also be made available and accessible to the public.

While in other places or in an earlier time in Tropical Florida, a plan that identifies important conservation sites might be viewed as controversial, there have already been a number of reports and plans covering this ecoregion (most recently the Florida Forever Plan) that have mapped areas of conservation significance without generating landowner objections. It is now well publicized throughout Florida that state agencies which acquire land operate from a willing seller perspective. This has allayed fears that were present just a few years ago concerning takings of land for habitat conservation. Many people within the Tropical Florida Ecoregion have become familiar with and engaged in conservation issues (more than 60% of the land within the ecoregion is already in some form of conservation protection).

V. CONCLUSION

Implementation, Partners and Conservation Area Planning

The Florida Chapter of The Nature Conservancy has long been active in working with many partners to conserve portfolio sites within the Tropical Florida Ecoregion. Past accomplishments include:

- Extensive land acquisition in cooperation with the State of Florida, the South Florida Water Management District, Miami-Dade and Monroe counties and with federal agencies.
- Support for funding for conservation land acquisition including conservation bond referenda in Miami-Dade and Collier counties, Preservation 2000 and the Florida Forever Programs, appropriations from the Federal Land and Water Conservation Fund, and congressional funding for the Comprehensive Everglades Restoration Project.
- Assistance in the design and implementation of the Florida Keys National Marine Sanctuary
- Support for and input to Everglades Restoration.
- Participation with state and local governments on the design and implementation of strategies to control invasive exotic plants.

While the Conservancy is proud of this work, the activities of the Federal and State agencies in Tropical Florida are far greater in scope, cost and impact than our own. As noted above, implementation of the Comprehensive Everglades Restoration Plan (CERP) is the largest environmental restoration project on Earth. It is the Nature Conservancy's hope that this plan will contribute information and judgements useful to the CERP project and to the work of the Florida Department of Environmental Protection, the South Florida Water Management District, and the many federal agencies engaged in conservation in this ecoregion.

Implementation of the Tropical Florida Ecoregional Plan will involve continuation of all of these activities with organization and oversight through the Florida Chapter's South Florida Landscape Conservation Area (LCA) headquartered in the Florida Keys. The South Florida LCA staff are currently focused on several key strategies in the region. These include:

- Land acquisition in the Model Lands, Everglades and Big Cypress areas.
- Advocating for public acquisition in Lower Keys and Key Largo Hammocks.
- Advocating for state and federal funding for implementation of the Comprehensive Everglades Restoration Plan.
- Advocating for federal funding for land acquisition in the Lower Keys.
- Promoting and assisting public stewardship actions, including prescribed fire and invasive exotic removal in the Florida Keys.
- Securing state and federal appropriations for water quality improvements in the Florida Keys.

Next Steps

Next steps in further planning and implementation include:

- Completion of the Central and South Florida Marine Ecoregional Plan and integration of those findings with this Tropical Florida Plan.
- Updating of Conservation Area Plans for Tropical Florida according to priorities developed under the sequencing project:
    - **Now, Right Now** (FY05): Everglades Watershed, Lower Keys Pinelands and Hammocks, Big Cypress Watershed, Key Largo Hammocks
    - **Now** (FY06): Estero Bay Watershed, Model Lands
    - **Soon**: LEC sites, Okeechobee Marshlands and Rookery, Scaly Stem Prairie
- For the Everglades Conservation Area Plan, Chapter staff are reviewing the details of the CERP plan and its targets to understand the extent to which CERP strategies will protect the full suite of biological diversity and abate critical threats, and how the Conservancy best complement this enormous restoration effort.
- Begin planning for implementation of Transforming Coral Reef Conservation resilience principles in South Florida.

The Tropical Florida Ecoregion is an unusual place. It brings together large areas of protected land and water, including three National Parks, with very rapidly growing urban areas. Because of its location and topography, the ecoregion is affected by powerful external influences (such as invasive exotic plants and global warming) that threaten the survival of the region's natural systems. Thus the future of the Tropical Florida portfolio continues to hang in the balance. This ecoregional plan provides additional scientific information aimed to tip that balance toward survival of native species. The planning process identifies new sites and habitat connections among sites that can help to achieve lasting conservation results including the survival of large vertebrates and other components of Florida's biodiversity.

As suggested by its name, the Tropical Florida Ecoregion more closely resembles in its natural character the ecoregions of the Caribbean and Latin America than it does the rest of the contiguous 48 states. Implementing the conservation strategies set out in the plan in south Florida's complex political and social environment will not be easy, but success is critical not only for the benefit of Tropical Florida's native plants and animals, but also as an example to our neighbors to the south of whether it is possible to conserve tropical ecosystems in the face of rapid growth and change.

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VII. GLOSSARY *(Compiled from various resources[1])*

alliance: A coarse level of biological community organization in the US National Vegetation Classification, defined as a group of plant associations sharing one or more diagnostic species (dominant, differential, indicator, or character), which, as a rule, are found in the uppermost strata of the vegetation. Aquatic alliances correspond spatially to macrohabitats.

areas of biodiversity significance: Although the term conservation site is often used to describe areas chosen through the process of ecoregional planning, in actuality these are areas of biodiversity significance and different from sites as defined in site conservation planning. Although ecoregional plans may delineate rough or preliminary site boundaries or use other systematic units such as watersheds or hexagons as site selection units, the boundaries and the target occurrences contained within these areas are first approximations that will be dealt with in more specificity and accuracy in the site conservation planning process.

association: The finest level of biological community organization in the US National Vegetation Classification, defined as a plant community with a definite floristic composition, uniform habitat conditions, and uniform physiognomy. With the exception of a few associations that are restricted to specific and unusual environmental conditions, associations generally repeat across the landscape. They also occur at variable spatial scales depending on the steepness of environmental gradients and the patterns of distribution.

biological diversity: The variety of living organisms considered at all levels of organization including the genetic, species, and higher taxonomic levels. Biological diversity also includes the variety of habitats, ecosystems, and natural processes occurring therein.

biodiversity hot spot: Typically, a geographic location under a high degree of threat and characterized by unusually high species richness and large numbers of endemic species.

bioreserve: A landscape, large in size with naturally functioning ecological processes and containing outstanding examples of ecosystems (ecological systems), communities, and species which are endangered or inadequately protected.

CERP: Comprehensive Everglades Restoration Plan, the primary and overarching purpose of which is to restore the south Florida ecosystem. See http://www.evergladesplan.org.

coarse-filter/fine-filter approach: A strategy for selecting focal conservation targets. The principal idea behind the coarse filter approach is that by conserving representative examples of the different biological communities and ecosystems that occur within a region, the majority of species of that region will also be conserved. Some types of conservation targets, however, such as rare or endangered species, do not always co-occur in a predictable fashion with certain communities or ecosystems. For these targets, individual or fine filter approaches are necessary.

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[1] Primarily:

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coarse-scale approach: Ecological systems or matrix communities are spatially large terrestrial targets referred to as coarse-scale. The coarse-scale approach is the first step in the portfolio assembly process where all coarse-scale targets are represented or "captured" in the ecoregion (including those that are feasibly restorable).

community: Terrestrial or plant communities are community types of definite floristic composition, uniform habitat conditions, and uniform physiognomy. Terrestrial communities are defined by the finest level of classification, the "plant association" level of the National Vegetation Classification. Like ecological systems, terrestrial communities are characterized by both a biotic and abiotic component. Even though they are classified based upon dominant vegetation, we use them as inclusive conservation units that include all component species (plant and animal) and the ecological processes that support them.

complementarity: The principle of selecting action sites that complement or are "most different" from sites that are already conserved. We can define sites that are already conserved as those with targets that have high biodiversity health (as measured by size, condition, and landscape context) and low threat rankings.

completeness: In portfolio assembly, the attempt to capture all targets within functional sites.

connectivity: Conservation sites or reserves have permeable boundaries and thus are subject to inflows and outflows from the surrounding landscapes. Connectivity in the selection and design of nature reserves relates to the ability of species to move across the landscape to meet basic habitat requirements. Natural connecting features within the ecoregion may include river channels, riparian corridors, ridgelines, or migratory pathways.

conservation area: An area identified in the portfolio and defined by features such as vegetation, geology, elevation, landform, ownership, or other features, which is the focus of strategies designed to conserve a suite of conservation targets. Conservation areas are designed to maintain the targets and their supporting ecological processes within their natural ranges of variability. Conservation areas range along a continuum of complexity and scale, from landscapes that seek to conserve a large number of conservation targets and multiple scales, to small sites that seek to conserve a limited number of targets.

conservation goal: In ecoregional planning, the number and spatial distribution of on-the-ground occurrences of targeted species, communities, and ecological systems that are needed to adequately conserve the target in an ecoregion.

conservation status: Usually refers to the category assigned to a conservation target such as threatened, endangered, imperiled, vulnerable, and so on.

conservation target: See target.

conservation strategy: See strategy.

corridor: A route that allows movement of individuals or taxa from one region or place to another. In ecoregional planning, it is important to establish corridors among sites for conservation targets that require such areas for dispersal and movement Focal species may help designing corridors and linkages.

disjunct: Disjunct species have populations that are geographically isolated from that of other populations.

ecological backdrop: Large areas of intact natural vegetation that occur in portions of an ecoregion but outside of conservation sites and are recognized as having critical importance in connectivity, ecological context, and function of natural processes. Ecological backdrops are differentiated from conservation sites by the anticipated lower level of on-the-ground conservation and strategies that may focus on large scale policy issues, such as multi-site threat abatement.

ecological communities: See community.

ecoregion: A relatively large area of land and water that contains geographically distinct assemblages of natural communities. These communities (1) share a large majority of their species, dynamics, and environmental conditions, and (2) function together effectively as a conservation unit at global and continental scales." Ecoregions were defined by Robert Bailey as major ecosystems resulting from large-scale predictable patterns of solar radiation and moisture, which in turn affect the kinds of local ecosystems and animals and plant found within.

ecoregional portfolio: See portfolio.

element: A term originating from the methodology of the Natural Heritage Network that refers to species, communities, and other entities (e.g., migratory bird stopovers) of biodiversity that serve as both conservation targets and as units for organizing and tracking information.

element occurrence (EO): A term originating from methodology of the Natural Heritage Network that refers to a unit of land or water on which a population of a species or example of an ecological community occurs. For communities, these EOs represent a defined area that contains a characteristic species composition and structure.

element occurrence rank: A qualitative assessment of estimated viability, or probability of persistence (based on size, condition, and landscape context), of individual occurrences of a given element.

endemic: Species that are restricted to an ecoregion (or a small geographic area within an ecoregion), depend entirely on a single area for survival, and are therefore often more vulnerable.

fine-filter: See coarse-filter/fine-filter approach. Wide-ranging, very rare, extremely localized, narrowly endemic or keystone species are examples of conservation targets that may not be adequately protected by strategies aimed at coarse-scale targets and therefore require individual consideration.

fragmentation: Process by which habitats are increasingly subdivided into smaller units, resulting in their increased insularity as well as losses of total habitat area. Fragmentation may be caused by humans (such as development of a road) or by natural processes (such as a tornado).

functionality: In portfolio assembly, a principle where we ensure all sites in a portfolio are functional or feasibly restorable to a functional condition. Functional sites maintain the size, condition, and landscape context within the natural range of variability of the respective conservation targets.

GAP (National Gap Analysis Program): Gap analysis is a scientific method for identifying the degree to which native animal species and natural communities are represented in our present-day mix of conservation lands. Those species and communities not adequately represented in the existing network of conservation lands constitute conservation "gaps." The purpose of the Gap Analysis Program (GAP) is to provide broad geographic information on the status of ordinary species (those not threatened with extinction or naturally rare) and their habitats in order to provide land managers, planners, scientists, and policy makers with the information they need to make better-informed decisions.

GIS (Geographic Information System): A computerized system of organizing and analyzing any spatial array of data and information.

global rank: A numeric assessment of a biological element's relative imperilment and conservation status across its range of distribution ranging from G1 (critically imperiled) to G5 (secure). Assigned by the Natural Heritage Network, global ranks for species and communities are determined primarily by the number of occurrences or total area of coverage (communities only), modified by other factors such as condition, historic trend in distribution or condition, vulnerability, and threats.

habitat: The place or type of site where species and species assemblages are typically found and/ or successfully reproducing. In addition, marine communities and systems are referred to as habitats. They are named according to the features that provide the underlying structural basis for the community.

heritage: A term used loosely to describe the Network of Natural Heritage Programs and Conservation Data Centers or to describe the standardized methodologies used by these programs.

irreplaceable: The single most outstanding example of a target species, community, or system, or a population that is critical to a species remaining extant and not going extinct.

keystone species: A species whose impacts on its community or ecosystem are large; much larger than would be expected from its abundance.

large patch: Communities that form large areas of interrupted cover. Individual occurrences of this community patch type typically range in size from 50 to 2,000 hectares. Large patch communities are associated with environmental conditions that are more specific than those of matrix communities, and that are less common or less extensive in the landscape. Like matrix communities, large-patch communities are also influenced by large-scale processes, but these tend to be modified by specific site features that influence the community.

matrix-forming or matrix communities: Communities that form extensive and contiguous cover may be categorized as matrix (or matrix-forming) community types. Matrix communities occur on the most extensive landforms and typically have wide ecological tolerances. They may be characterized by a complex mosaic of successional stages resulting from characteristic disturbance processes (e.g. New England northern hardwood-conifer forests). Individual occurrences of the matrix type typically range in size from 2000 to 500,000 hectares. In a typical ecoregion, the aggregate of all matrix communities covers, or historically covered, as much as 75-80% of the natural vegetation of the ecoregion. Matrix community types are often influenced by large-scale processes (e.g. climate patterns, fire) and are important habitat for wide-ranging or large area-dependent fauna, such as large herbivores or birds.

metapopulation: A network of semi-isolated populations with some level of regular or intermittent migration and gene flow among them, in which individual populations may go extinct but can then be recolonized from other source populations (this is referred to as rescue effect).

mosaic: An interconnected patchwork of distinct vegetation types.

native: Those species and communities that were not introduced accidentally or purposefully by people but that are found naturally in an area. Native communities are those characterized by native species and maintained by natural processes. Native includes both endemic and indigenous species.

occurrence: Spatially referenced examples of species, communities, or ecological systems. May be equivalent to Heritage Element Occurrences, or may be more loosely defined locations delineated through 1) the definition and mapping of other spatial data or 2) the identification of areas by experts.

patch community: Communities nested within matrix communities and maintained primarily by specific environmental features rather than disturbance processes.

portfolio: Also called ecoregional portfolio. The suite of areas of biodiversity significance identified in an ecoregional assessment that can conserve representative occurrences of biological diversity targeted to meet conservation goals.

representation: A principle of reserve selection and design referring to the capture the full spectrum of biological and environmental variation within a network of reserves or conservation sites, including all genotypes, species, communities, ecosystems, habitats, and landscapes.

small patch: Communities that form small, discrete areas of vegetation cover. Individual occurrences of this community type typically range in size from 1 to 50 hectares. Small patch communities occur in very specific ecological settings, such as on specialized landform types or in unusual microhabitats. The specialized conditions of small patch communities, however, are often dependent on the maintenance of ecological processes in the surrounding matrix and large patch communities. In many ecoregions, small patch communities contain a disproportionately large percentage of the total flora, and also support a specific and restricted set of associated fauna (e.g. invertebrates or herptofauna) dependent on specialized conditions.

source (of stress): An extraneous factor, either human (i.e. activities, policies, land uses) or biological (e.g. non-native species), that infringes upon a conservation target in a way that results in stress.

stakeholder: In a particular project or area, someone who: a) would benefit if The Nature Conservancy achieved its project goals, b) would be hurt, or believe they could be hurt by The Nature Conservancy's goals, c) could shape public opinion about The Nature Conservancy's project even if it might not directly affect them, and d) has the authority to make decisions affecting The Nature Conservancy's goals.

stress: Something which impairs or degrades the size, condition, or landscape context of a conservation target, resulting in reduced viability.

strategy: A suite of actions designed to achieve a specific objective or outcome that abates a threat or enhances the ecological integrity of a conservation target.

target: Also called conservation target. Populations of imperiled species, natural communities, and ecosystems identified through the conservation planning process as priorities for maintenance of long-term persistence within a defined area.

threat: The combined concept of ecological stresses to a target and the sources of that stress to the target.

umbrella species: Typically wide-ranging species that require large blocks of relatively natural or unaltered habitat to maintain viable populations. Protection of the habitats of these species may protect the habitat and populations of many other more restricted or less wide ranging species.

viable/viability: The ability of a species to persist for many generations or an ecological community or system to persist over some time period. An assessment of viability will often focus on the minimum area and number of occurrences necessary for persistence. However, conservation goals should not be restricted to the minimum but rather should extend to the size, distribution, and number of occurrences necessary for a community to support its full complement of native species.

VIII. MAPS

Map 1. Ecoregions of the United States

Map 2. Florida Peninsula and Tropical Florida Ecoregions

Map 3. Tropical Florida Subecoregions

Map 4. Point Data for Tropical Florida Target Occurrences

Map 5. Tropical Florida Ecoregion Portfolio
(Areas of Biodiversity Conservation Significance)

Map 6. Protection Status of Managed Areas of the Tropical Florida Ecoregion

Map 7. Managed Areas of the Tropical Florida Ecoregion by Ownership

Map 8. Conservation Areas for the Tropical Florida Ecoregion Sequencing Project

DATA SOURCES:

Ecoregions/subregions: Based on information from the USFS (Bailey's), State Natural Heritage Programs and The Nature Conservancy.

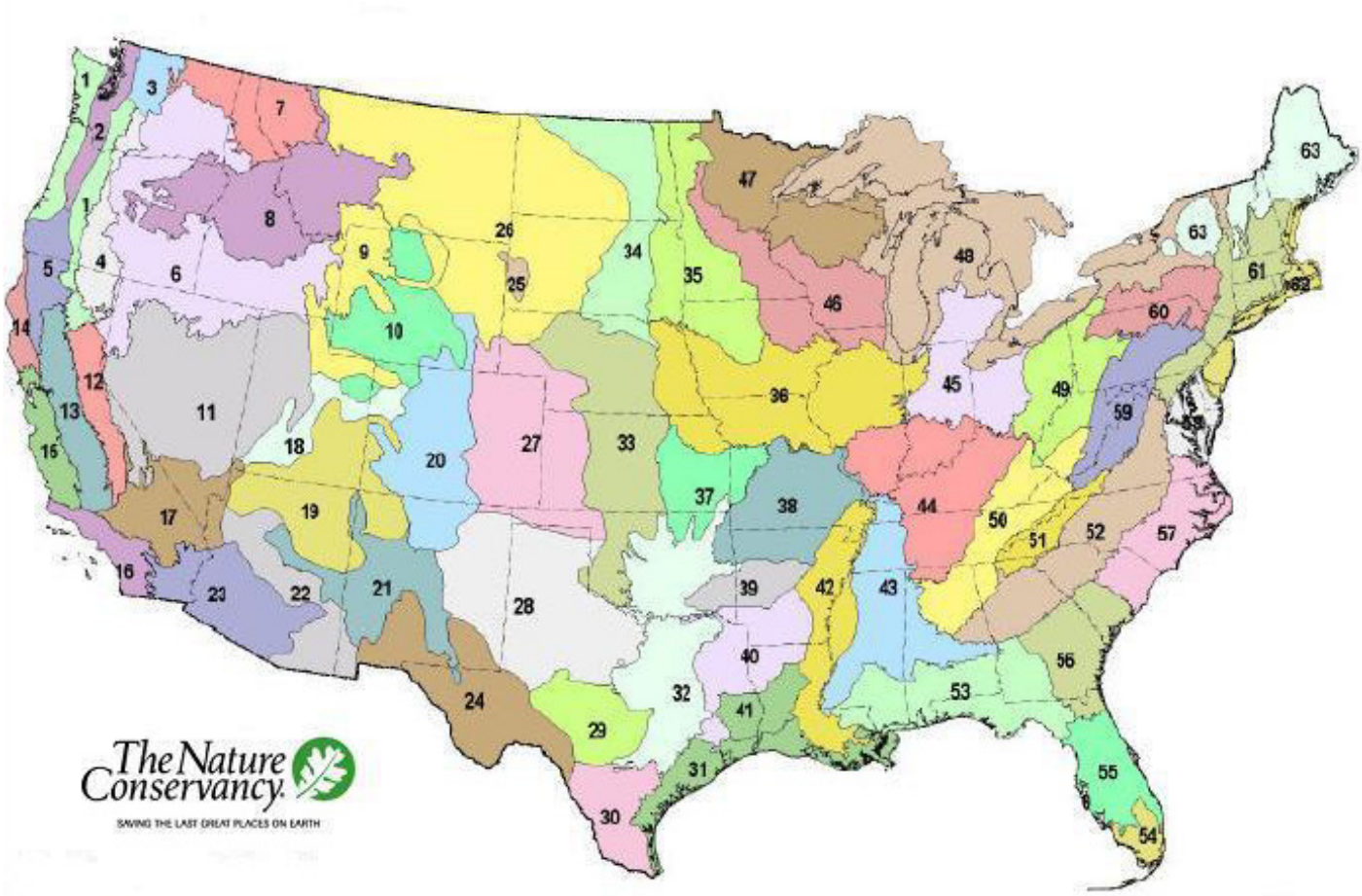
Portfolio areas: These are public and private lands and waters deserving of conservation interest because of their exceptional biological value, as outlined in this plan. The identification of particular areas does not imply any specific conservation action on the part of any public or private landowner or manager or any Nature Conservancy person. Conservancy staff work only with willing conservation partners.

Target occurrences: Primarily Florida Natural Areas Inventory element occurrence records, as well as data from universities, agencies and individual biologists (see Table 7).

Managed areas/protected status/ownership: Florida Managed Areas layer provided by the Florida Natural Areas Inventory, and based on information submitted directly by the managing agencies.

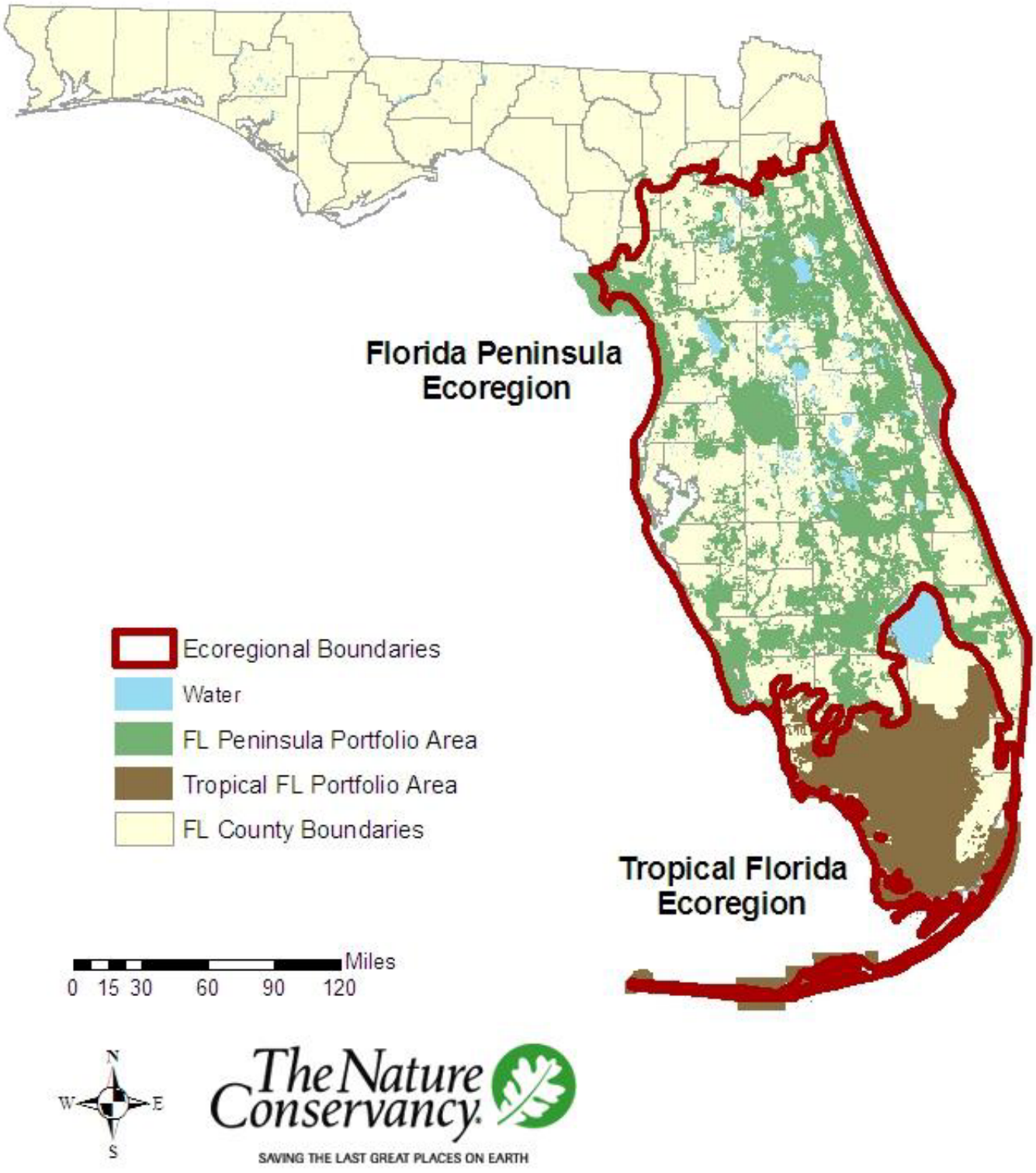
Map 1: Ecoregions of the United States

Modification of Bailey's Ecoregions (USDA-FS) by The Nature Conservancy and Natural Heritage Program

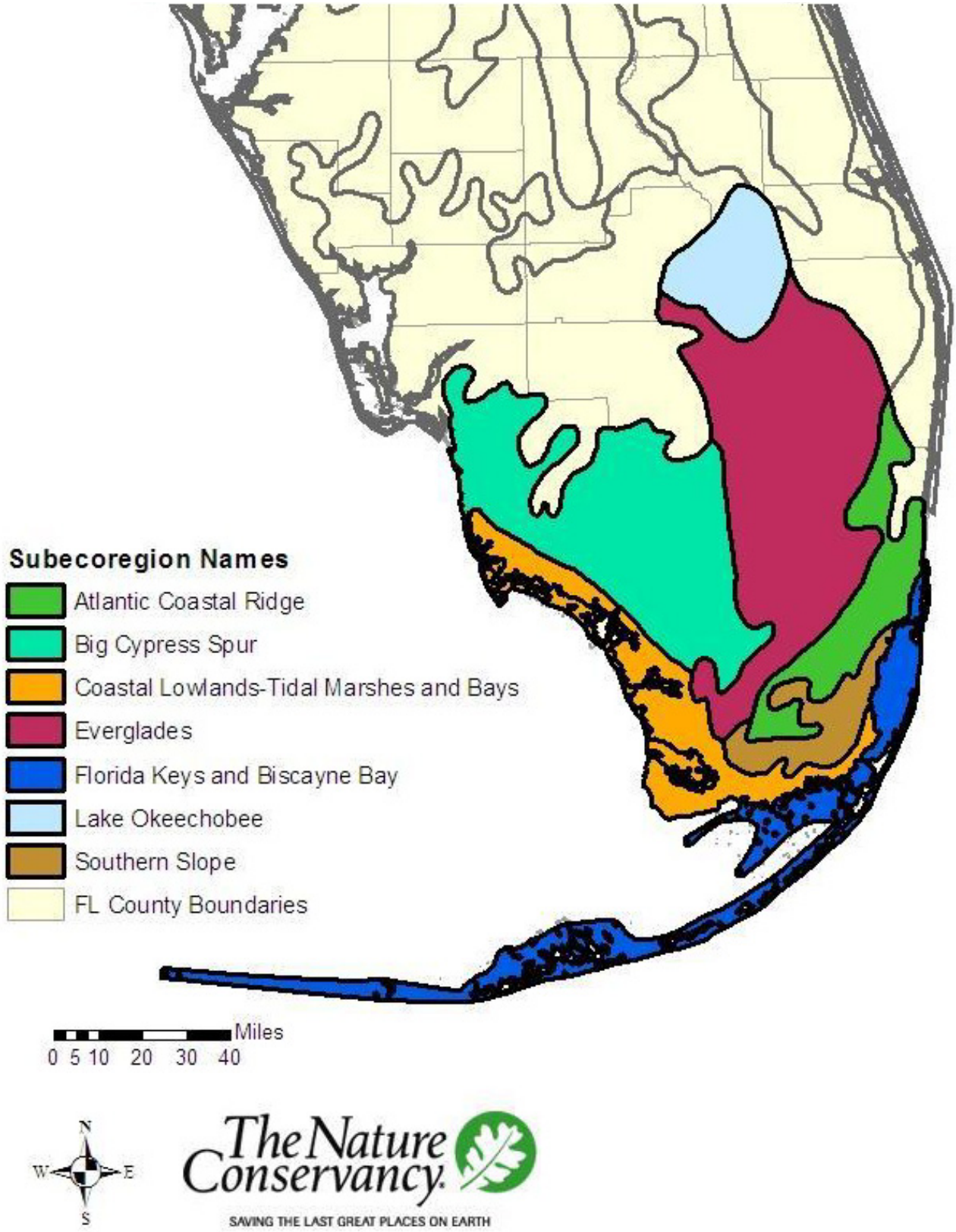


1 West Cascades and Coastal Forests
2 Puget Trough and Willamette Valley
3 North Cascades
4 Modoc Plateau and East Cascades
5 Klamath Mountains
6 Columbia Plateau
7 Canadian Rocky Mountains
8 Middle Rocky Mountain- Blue Mountain
9 Utah-Wyoming Rocky Mountains
10 Wyoming Basins
11 Great Basin
12 Sierra Nevada
13 Great Central Valley
14 California North Coast
15 California Central Coast
16 California South Coast
17 Mojave Desert
18 Utah High Plateaus
19 Colorado Plateau
20 Colorado Rocky Mountains
21 Arizona-New Mexico Mountains
22 Apache Highlands
23 Sonoran Desert
24 Chihuahuan Desert
25 Black Hills
26 Northern Great Plains Steppe
27 Central Shortgrass Prairie
28 Southern Shortgrass Prairie
31 Gulf Coast Prairies and Marshes
32 Crosstimbers & Southern Tallgrass Prairie
33 Central Mixed-Grass Prairie
34 Northern Mixed-Grass Prairie
35 Northern Tallgrass Prairie
36 Central Tallgrass Prairie
37 Osage Plains/Flint Hills Prairie
38 Ozarks
39 Ouachita Mountains
40 Upper West Gulf Coastal Plain
41 West Gulf Coastal Plain
42 Mississippi River Alluvial Plain
43 Upper East Gulf Coastal Plain
44 Interior Low Plateau
45 North Central Tillplain
46 Prairie-Forest Border
47 Superior Mixed Forest
48 Great Lakes
49 Western Allegheny Plateau
50 Cumberlands & Southern Ridge & Valley
51 Southern Blue Ridge
52 Piedmont
53 East Gulf Coastal Plain
54 Tropical Florida
55 Florida Peninsula
56 South Atlantic Coastal Plain
57 Mid-Atlantic Coastal Plain
58 Chesapeake Bay Lowlands
59 Central Appalachian Forest
60 High Allegheny Plateau
61 Lower New England/Northern Piedmont
62 North Atlantic Coast
63 Northern Appalachian-Boreal Forest

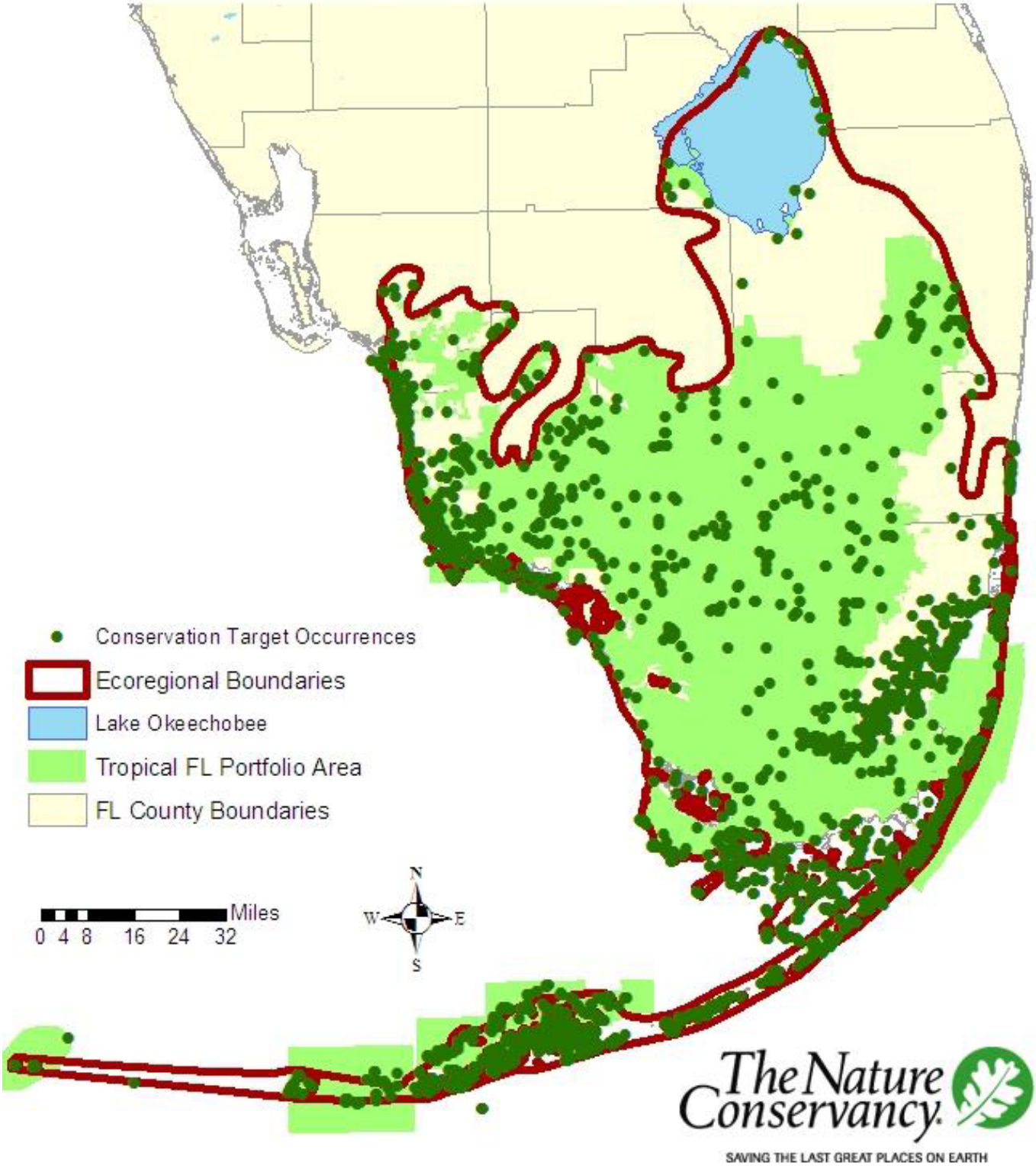
Map 2: Florida Peninsula and Tropical Florida Ecoregions



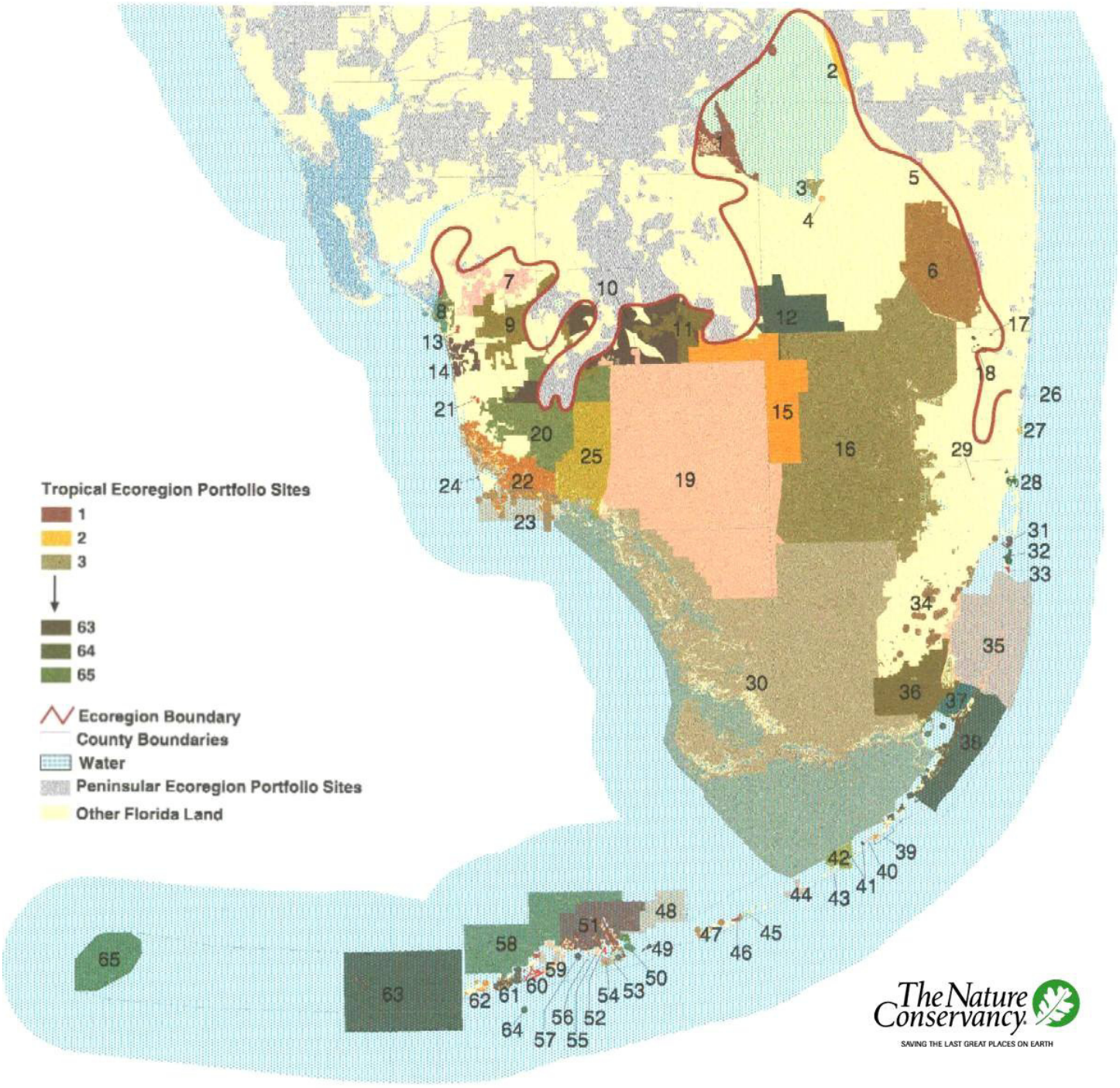
Map 3: Tropical Florida Subecoregions
(Note: Atlantic Coastal Ridge and Southern Slope were combined for distributional goals.)



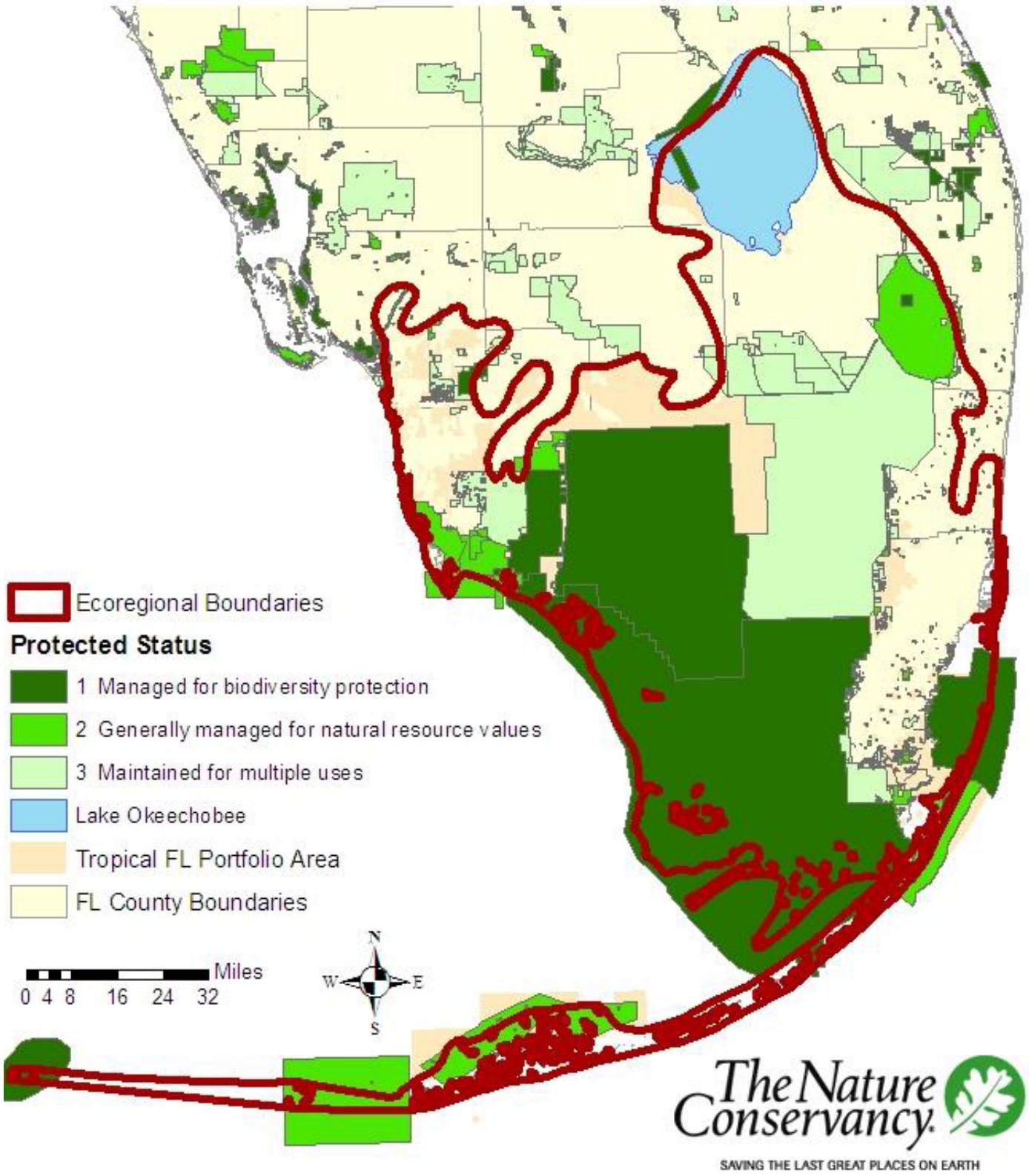
Map 4: Point Data for Tropical Florida Ecoregion Target Occurrences



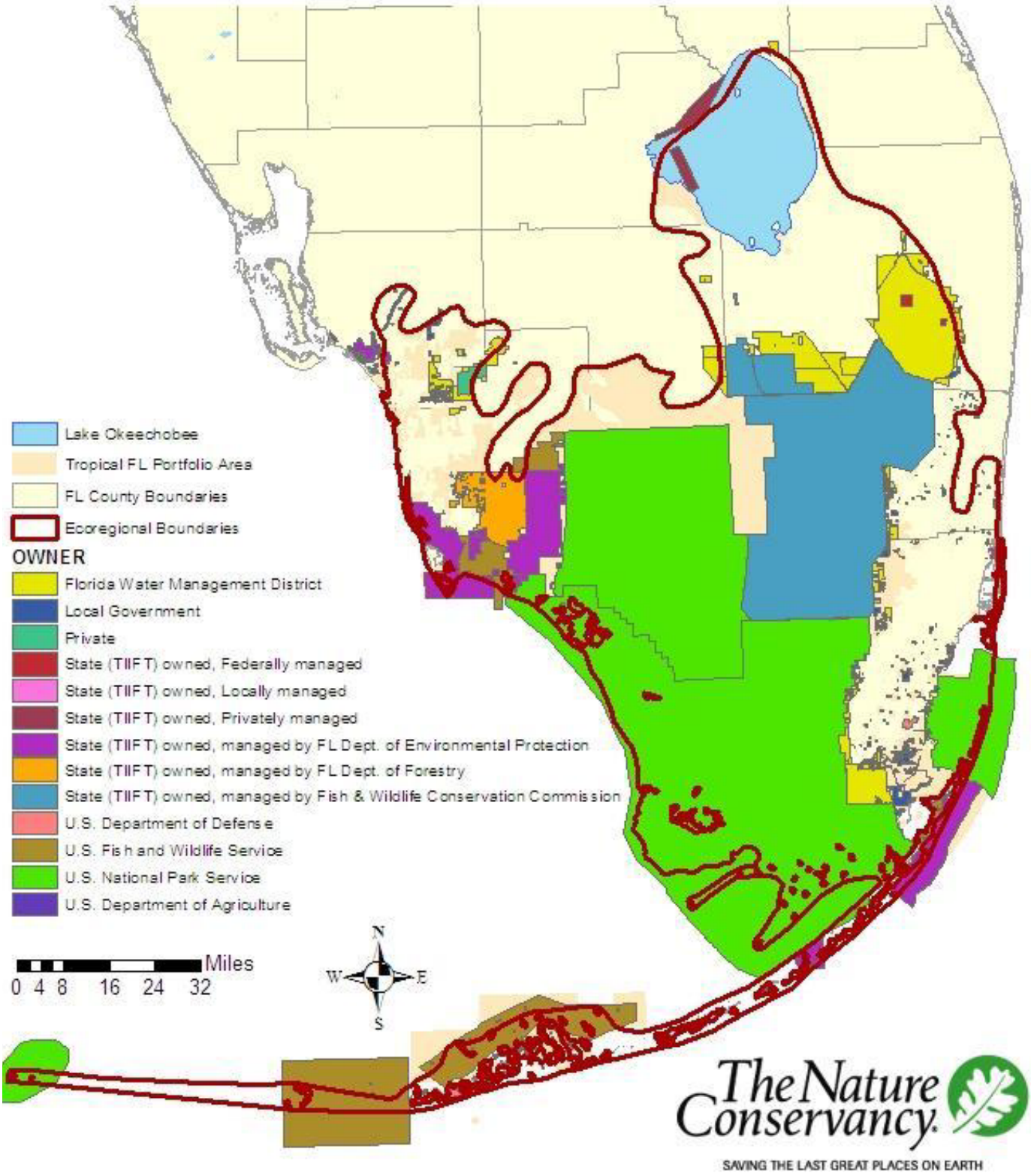
Map 5: Tropical Florida Ecoregion Portfolio



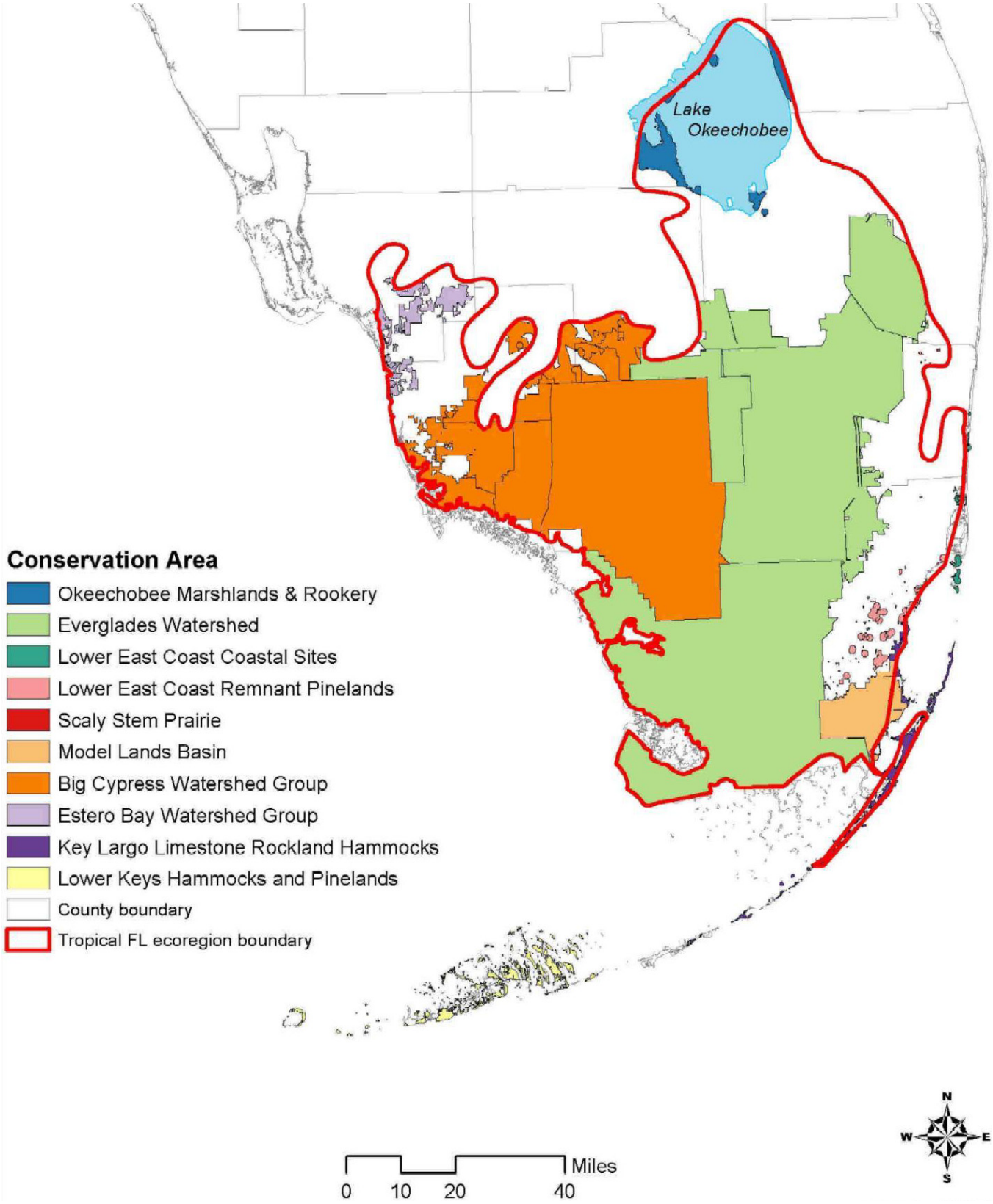
Map 6: Protection Status of Managed Areas of the Tropical Florida Ecoregion



Map 7: Managed Areas of the Tropical Florida Ecoregion by Ownership



Map 8: Conservation Areas for Tropical Florida Ecoregion Sequencing Project



IX. APPENDICES

Appendix I: Expert Workshop Participants

Appendix II: Species Targets by Scientific and Common Names

Appendix III: Ecological Community/System Classification for Tropical Florida Ecoregion

Appendix IV: Assessment of Conservation Goals Met by Plant Species Targets

Appendix V: Assessment of Conservation Goals Met by Animal Species Targets

Appendix VI: Assessment of Conservation Goals Met by Ecological System Targets

Appendix VII: Summary Statistics for Each Portfolio Site

Appendix VIII: Targets Captured at Each Portfolio Site

Appendix I: Expert Workshop Participants

Aquatic Invertebrate Team Members and their Affiliations
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Appendix II: Species Targets by Scientific and Common Names

TROPICAL FLORIDA SPECIES TARGETS	
SCIENTIFIC NAME	**COMMON NAME**
PLANTS	
ACACIA CHORIOPHYLLA	FLORIDA ACACIA
ACROSTICHUM AUREUM	GOLDEN LEATHER FERN
ACTINOSTACHYS PENNULA	RAY FERN
ADIANTUM MELANOLEUCUM	FRAGRANT MAIDENHAIR FERN
ADIANTUM TENERUM	BRITTLE MAIDENHAIR FERN
AESCHYNOMENE PRATENSIS VAR. PRATENSIS	MEADOW JOINTVETCH
AGERATUM LITTORALE	CAPE SABLE WHITEWEED
ALETRIS BRACTEATA	BRACTED COLICROOT
ALVARADOA AMORPHOIDES	EVERGLADES LEAF LACE
AMORPHA HERBACEA VAR CRENULATA	CRENULATE LEAD-PLANT
ANEMIA WRIGHTII	WRIGHT'S ANEMIA
ARGYTHAMNIA BLODGETTII	BLODGETT'S WILD-MERCURY
ARISTOLOCHIA PENTANDRA	DUTCHMAN'S PIPE
ASPLENIUM AURITUM	AURICLED SPLEENWORT
ASPLENIUM SERRATUM	BIRD'S NEST SPLEENWORT
ASPLENIUM TRICHOMANES-DENTATUM	SLENDER SPLEENWORT
ASPLENIUM X BISCAYNIANUM	EATON'S SPLEENWORT
BASIPHYLLAEA CORALLICOLA	ROCKLAND ORCHID
BOURRERIA CASSINIFOLIA	LITTLE STRONGBARK
BOURRERIA RADULA	ROUGH STRONGBARK
BRICKELLIA EUPATORIOIDES VAR. FLORIDANA	FLORIDA BRICKELL-BUSH
BURMANNIA FLAVA	FAKAHATCHEE BURMANNIA
CAESALPINIA PAUCIFLORA	FEWFLOWER HOLDBACK
CALYPTRANTHES ZUZYGIUM	MYRTLE-OF-THE-RIVER
CAMPYLOCENTRUM PACHYRRHIZUM	RIBBON ORCHID
CAMPYLONEURUM ANGUSTIFOLIUM	NARROW-LEAVED STRAP FERN
CAMPYLONEURUM COSTATUM	TAILED STRAP FERN
CANELLA WINTERIANA	WILD CINNAMON
CATESBAEA PARVIFLORA	SMALL-FLOWERED LILY-THORN
CATOPSIS BERTERONIANA	POWDERY CATOPSIS
CATOPSIS FLORIBUNDA	MANY-FLOWERED CATOPSIS
CATOPSIS NUTANS	NODDING CATOPSIS
CELTIS PALLIDA	SPINY HACKBERRY
CHAMAECRISTA LINEATA VAR KEYENSIS	BIG PINE PARTRIDGE PEA
CHAMAESYCE CUMULICOLA	SAND-DUNE SPURGE
CHAMAESYCE DELTOIDEA SSP ADHAERENS	HAIRY DELTOID SPURGE

CHAMAESYCE DELTOIDEA SSP DELTOIDEA	DELTOID SPURGE
CHAMAESYCE DELTOIDEA SSP SERPYLLUM	WEDGE SPURGE
CHAMAESYCE GARBERI	GARBER'S SPURGE
CHAMAESYCE PINETORUM	PINELANDS SPURGE
CHAMAESYCE PORTERIANA VAR PORTERIANA	PORTER'S BROAD-LEAVED SPURGE
CHEILANTHES MICROPHYLLA	SOUTHERN LIP FERN
CHEIROGLOSSA PALMATA	HAND FERN
CIENFUEGOSIA YUCATANENSIS	MEXICAN HIBISCUS
COLUBRINA CUBENSIS	CUBAN SNAKE-BARK
COLUBRINA CUBENSIS VAR FLORIDANA	CUBAN SNAKE-BARK
CONRADINA GRANDIFLORA	LARGE-FLOWERED ROSEMARY
CRANICHIS MUSCOSA	CYPRESS-KNEE HELMET-ORCHID
CROSSOPETALUM ILICIFOLIUM	CHRISTMAS BERRY
CTENITIS SLOANEI	FLORIDA TREE FERN
CUPANIA GLABRA	CUPANIA
CYPERUS FLORIDANUS	FLORIDA FLATSEDGE
CYPERUS FULIGINEUS	LIMESTONE FLATSEDGE
CYRTOPODIUM PUNCTATUM	COW HORN ORCHID
DIGITARIA PAUCIFLORA	FEW-FLOWERED CRABGRASS
DODONAEA ELAEAGNOIDES	KEYS HOPBUSH
ELTROPLECTRIS CALCARATA	SPURRED NEOTTIA
ELYTRARIA CAROLINIENSIS VAR ANGUSTIFOLIA	NARROW-LEAVED CAROLINA SCALYSTEM
ENCYCLIA BOOTHIANA VAR ERYTHRONIOIDES	DOLLAR ORCHID
ENCYCLIA COCHLEATA VAR TRIANDRA	CLAMSHELL ORCHID
ENCYCLIA PYGMAEA	DWARF ENCYCLIA
EPIDENDRUM NOCTURNUM	NIGHT-SCENTED ORCHID
EPIDENDRUM STROBILIFERUM	PENDANT EPIDENDRUM
ERIOCHLOA MICHAUXII VAR SIMPSONII	LONGLEAF CUPGRASS
EUGENIA CONFUSA	TROPICAL IRONWOOD
EUGENIA RHOMBEA	RED STOPPER
EUPATORIUM FRUSTRATUM	CAPE SABLE THOROUGHWORT
EUPATORIUM VILLOSUM	VILLOSE FENNEL
EUPHORBIA PINETORUM	ROCKLAND PAINTED-LEAF
EVOLVULUS GRISEBACHII	GRISEBACH'S BINDWEED
EXOSTEMA CARIBAEUM	CARIBBEAN PRINCEWOOD
FORESTIERA SEGREGATA VAR PINETORUM	FLORIDA PINEWOOD PRIVET
GALACTIA PINETORUM	PINELAND MILK PEA
GALACTIA SMALLII	SMALL'S MILK PEA
GALEANDRA BEYRICHII	BEYRICH'S HELMET ORCHID
GLANDULARIA MARITIMA	COASTAL VERVAIN
GOSSYPIUM HIRSUTUM	WILD COTTON
GUAIACUM SANCTUM	LIGNUM-VITAE

GUZMANIA MONOSTACHIA	FAKAHATCHEE GUZMANIA
GYMINDA LATIFOLIA	FALSE BOXWOOD
GYMNOPOGON CHAPMANIANUS	CHAPMAN'S SKELETONGRASS
HALOPHILA JOHNSONII	JOHNSON'S SEAGRASS
HARRISIA SIMPSONII	SIMPSON'S PRICKLY APPLE
HIPPOMANE MANCINELLA	MANCHINEEL
HUPERZIA DICHOTOMA	HANGING CLUBMOSS
HYPELATE TRIFOLIATA	WHITE IRONWOOD
HYPERICUM EDISONIANUM	EDISON'S ASCYRUM
ILEX KRUGIANA	KRUG'S HOLLY
INDIGOFERA MUCRONATA VAR KEYENSIS	DECUMBENT INDIGO
IONOPSIS UTRICULARIOIDES	DELICATE IONOPSIS
IPOMOEA MICRODACTYLA	WILD POTATO MORNING GLORY
IPOMOEA TENUISSIMA	ROCKLANDS MORNING GLORY
JACQUEMONTIA CURTISSII	PINELAND JACQUEMONTIA
JACQUEMONTIA HAVANENSIS	CUBAN JACQUEMONTIA
JACQUEMONTIA PENTANTHOS	SKYBLUE CLUSTERVINE
JACQUEMONTIA RECLINATA	BEACH JACQUEMONTIA
JACQUINIA KEYENSIS	JOEWOOD
LANTANA CANESCENS	SMALL-HEADED LANTANA
LANTANA DEPRESSA VAR DEPRESSA	FLORIDA LANTANA
LANTANA DEPRESSA VAR FLORIDANA	ATLANTIC COAST FLORIDA LANTANA
LANTANA DEPRESSA VAR SANIBELENSIS	GULF COAST FLORIDA LANTANA
LECHEA CERNUA	NODDING PINWEED
LECHEA LAKELAE	LAKELA'S PINWEED
LEIPHAIMOS PARASITICA	GHOST PLANT
LEPANTHOPSIS MELANANTHA	TINY ORCHID
LICARIA TRIANDRA	GULF LICARIA
LINUM ARENICOLA	SAND FLAX
LINUM CARTERI VAR CARTERI	CARTER'S SMALL-FLOWERED FLAX
LINUM CARTERI VAR SMALLII	CARTER'S LARGE-FLOWERED FLAX
LOMARIOPSIS KUNZEANA	HOLLY VINE FERN
MACRADENIA LUTESCENS	TRINIDAD LUTESCENS
MAXILLARIA CRASSIFOLIA	HIDDEN ORCHID
MAXILLARIA PARVIFLORA	MINNIE-MAX
MICROGRAMMA HETEROPHYLLA	CLIMBING VINE FERN
NEVRODIUM LANCEOLATUM	RIBBON FERN
OKENIA HYPOGAEA	BURROWING FOUR-O'CLOCK
ONCIDIUM BAHAMENSE	DANCING-LADY ORCHID
ONCIDIUM FLORIDANUM	FLORIDA DANCINGLADY ORCHID
ONCIDIUM UNDULATUM	MULE EAR ORCHID
OPUNTIA SPINOSISSIMA	FLORIDA SEMAPHORE CACTUS
OPUNTIA TRIACANTHA	THREE-SPINED PRICKLY PEAR
PASSIFLORA MULTIFLORA	WHITISH PASSIONFLOWER

PASSIFLORA PALLENS	PINELAND PASSIONVINE
PEPEROMIA HUMILIS	TERRESTRIAL PEPEROMIA
PEPEROMIA OBTUSIFOLIA	BLUNT-LEAVED PEPEROMIA
PERSEA HUMILIS	SCRUB BAY
PHORADENDRON RUBRUM	MAHOGONY MISTLETOE
PHYLLANTHUS PENTAPHYLLUS SSP FLORIDANUS	FLORIDA FIVE-PETALED LEAF-FLOWER
PICRAMNIA PENTANDRA	BITTER BUSH
PILOSOCEREUS BAHAMENSIS	BAHAMIAN TREECACTUS
PILOSOCEREUS ROBINII	TREE CACTUS
PISONIA FLORIDANA	ROCK KEY DEVIL'S-CLAWS
PISONIA ROTUNDATA	DEVIL'S SMOOTH CLAWS
PLEUROTHALLIS GELIDA	FROST-FLOWER ORCHID
POLYGALA BOYKINII VAR SPARSIFOLIA	BOYKIN'S FEW-LEAVED MILKWORT
POLYGALA SMALLII	TINY POLYGALA
POLYRRHIZA LINDENII	GHOST ORCHID
PRESCOTIA OLIGANTHA	SMALL-FLOWERED PRESCOTIA
PRUNUS MYRTIFOLIA	WEST INDIAN CHERRY
PSEUDOPHOENIX SARGENTII	FLORIDA CHERRY-PALM
PSYCHOTRIA LIGUSTRIFOLIA	BAHAMA WILDCOFFEE
PTEROGLOSSASPIS ECRISTATA	GIANT ORCHID
RHIPSALIS BACCIFERA	MISTLETOE CACTUS
RHYNCHOSIA SWARTZII	SCHWARTZ' SNOUTBEAN
ROYSTONEA ELATA	FLORIDA ROYAL PALM
SACHSIA POLYCEPHALA	BAHAMA SACHSIA
SAVIA BAHAMENSIS	BAHAMA MAIDENBUSH
SCHAEFFERIA FRUTESCENS	YELLOWWOOD
SCHIZACHYRIUM SERICATUM	SILKY BLUESTEM
SCUTELLARIA HAVENENSIS	HAVANA SKULLCAP
SELAGINELLA EATONII	EATON'S SPIKEMOSS
SPHENOMERIS CLAVATA	WEDGELET FERN
SPIRANTHES COSTARICENSIS	COSTA RICA LADIES'-TRESSES
SPIRANTHES LANCEOLATA VAR PALUDICOLA	FAHKAHATCHEE LADIES' -TRESSES
SPIRANTHES TORTA	SOUTHERN LADIES'-TRESSES
STILLINGIA SYLVATICA SSP TENUIS	QUEEN'S DELIGHT
STRUMPFIA MARITIMA	PRIDE-OF-BIG-PINE
STYLISMA ABDITA	SCRUB STYLISMA
STYLOSANTHES CALCICOLA	PINELAND PENCIL FLOWERS
SWIETENIA MAHAGONI	WEST INDIES MAHOGANY
TECTARIA FIMBRIATA	LEAST HALBERD FERN
TEPHROSIA ANGUSTISSIMA VAR ANGUSTISSIMA	NARROWLEAF HOARY-PEA
TEPHROSIA ANGUSTISSIMA VAR CORALLICOLA	ROCKLAND HOARY-PEA

TEPHROSIA ANGUSTISSIMA VAR CURTISSII	COASTAL HOARY-PEA
THELYPTERIS REPTANS	CREEPING FERN
THELYPTERIS SCLEROPHYLLA	HARD-LEAVED SHIELD FERN
THRINAX RADIATA	FLORIDA THATCH PALM
TILLANDSIA PRUINOSA	FUZZY-WUZZY AIR-PLANT
TRAGIA SAXICOLA	PINELAND NOSEBURN
TREMA LAMARCKIANUM	LAMARCK'S TREMA
TRICHOMANES HOLOPTERUM	ENTIRE-WINGED BRISTLE FERN
TRICHOMANES KRAUSII	KRAUS' BRISTLE FERN
TRICHOMANES PUNCTATUM SSP FLORIDANUM	FLORIDA BRISTLE FERN
TRIPHORA CRAIGHEADII	CRAIGHEAD'S NODDING-CAPS
TRIPSACUM FLORIDANUM	FLORIDA GAMA GRASS
TROPIDIA POLYSTACHYA	YOUNG PALM-ORCHID
VALLESIA ANTILLANA	PEARL BERRY
VANILLA BARBELLATA	WORM-VINE ORCHID
VANILLA DILLONIANA	LEAFLESS VANILLA
VANILLA INODORA	MEXICAN VANILLA
VANILLA PHAEANTHA	LEAFY VANILLA
VERNONIA BLODGETTII	BLODGETT'S IRONWEED
ZANTHOXYLUM CORIACEUM	BISCAYNE PRICKLY ASH
ZANTHOXYLUM FLAVUM	SATINWOOD
ZEPHYRANTHES SIMPSONII	RAIN LILY
FISH	
GAMBUSIA RHIZOPHORAE	MANGROVE GAMBUSIA
GOBIOMORUS DORMITOR	BIGMOUTH SLEEPER
GOBIONELLUS STIGMATURUS	SPOTTAIL GOBY
MENIDIA CONCHORUM	KEY SILVERSIDE
MICROPHIS BRACHYURUS LINEATUS	OPOSSUM PIPEFISH
RIVULUS MARMORATUS	MANGROVE RIVULUS
HERPS	
CARETTA CARETTA	LOGGERHEAD
CHELONIA MYDAS	GREEN TURTLE
CROCODYLUS ACUTUS	AMERICAN CROCODILE
CROTALUS ADAMANTEUS	EASTERN DIAMONDBACK RATTLESNAKE
DIADOPHIS PUNCTATUS ACRICUS	KEY RINGNECK SNAKE
DRYMARCHON CORAIS COUPERI	EASTERN INDIGO SNAKE
ELAPHE OBSOLETA, SOUTH FLORIDA MAINLAND POP. (	EVERGLADES RAT SNAKE
ERETMOCHELYS IMBRICATA	HAWKSBILL
EUMECES EGREGIUS EGREGIUS	FLORIDA KEYS MOLE SKINK
GOPHERUS POLYPHEMUS	GOPHER TORTOISE

MALACLEMYS TERRAPIN RHIZOPHORARUM	MANGROVE TERRAPIN
SCELOPORUS WOODI	FLORIDA SCRUB LIZARD
STORERIA DEKAYI POP 1	LOWER KEYS BROWN SNAKE
TANTILLA OOLITICA	RIM ROCK CROWNED SNAKE
THAMNOPHIS SAURITUS POP 1	LOWER KEYS RIBBON SNAKE
BIRDS	
AJAIA AJAJA	ROSEATE SPOONBILL
AMMODRAMUS MARITIMUS MIRABILIS	CAPE SABLE SEASIDE SPARROW
ANAS FULVIGULA	MOTTLED DUCK
ARAMUS GUARAUNA	LIMPKIN
ARDEA HERODIAS OCCIDENTALIS	GREAT WHITE HERON
BUTEO BRACHYURUS	SHORT-TAILED HAWK
CARACARA PLANCUS	CRESTED CARACARA
CHARADRIUS ALEXANDRINUS	SNOWY PLOVER
CHARADRIUS MELODUS	PIPING PLOVER
COCCYZUS MINOR	MANGROVE CUCKOO
COLUMBA LEUCOCEPHALA	WHITE-CROWNED PIGEON
DENDROICA DISCOLOR PALUDICOLA	FLORIDA PRAIRIE WARBLER
DENDROICA PETECHIA GUNDLACHI	CUBAN YELLOW WARBLER
EGRETTA RUFESCENS	REDDISH EGRET
EGRETTA THULA	SNOWY EGRET
EGRETTA TRICOLOR	TRICOLORED HERON
ELANOIDES FORFICATUS	SWALLOW-TAILED KITE
EUDOCIMUS ALBUS	WHITE IBIS
FALCO PEREGRINUS	PEREGRINE FALCON
HALIAEETUS LEUCOCEPHALUS	BALD EAGLE
MYCTERIA AMERICANA	WOOD STORK
NYCTANASSA VIOLACEA	YELLOW-CROWNED NIGHT-HERON
PANDION HALIAETUS	OSPREY
PELECANUS OCCIDENTALIS	BROWN PELICAN
PICOIDES BOREALIS	RED-COCKADED WOODPECKER
PLEGADIS FALCINELLUS	GLOSSY IBIS
RALLUS LONGIROSTRIS INSULARUM	MANGROVE CLAPPER RAIL
ROSTRHAMUS SOCIABILIS PLUMBEUS	SNAIL KITE
RYNCHOPS NIGER	BLACK SKIMMER
SITTA PUSILLA	BROWN-HEADED NUTHATCH
STERNA ANTILLARUM	LEAST TERN
STERNA DOUGALLII	ROSEATE TERN
STERNA FUSCATA	SOOTY TERN
TYRANNUS DOMINICENSIS	GRAY KINGBIRD
VIREO ALTILOQUUS	BLACK-WHISKERED VIREO
MAMMALS	
CORYNORHINUS RAFINESQUII	RAFINESQUE'S BIG-EARED BAT

EUMOPS GLAUCINUS FLORIDANUS	FLORIDA MASTIFF BAT
FELIS CONCOLOR CORYI	FLORIDA PANTHER
MUSTELA FRENATA PENINSULAE	FLORIDA LONG-TAILED WEASEL
MUSTELA VISON MINK POP 1	SOUTHERN MINK, (S.FLORIDA POP.)
NEOTOMA FLORIDANA SMALLI	KEY LARGO WOODRAT
ODOCOILEUS VIRGINIANUS CLAVIUM	KEY DEER
ORYZOMYS PALUSTRIS NATATOR	SILVER RICE RAT
PEROMYSCUS GOSSYPINUS ALLAPATICOLA	KEY LARGO COTTON MOUSE
SCIURUS NIGER AVICENNIA	MANGROVE FOX SQUIRREL
SIGMODON HISPIDUS EXSPUTUS	LOWER KEYS COTTON RAT
SYLVILAGUS PALUSTRIS HEFNERI	LOWER KEYS RABBIT
TRICHECHUS MANATUS	MANATEE
URSUS AMERICANUS FLORIDANUS	FLORIDA BLACK BEAR
AQUATIC INVERTS	
CRANGONYX GRANDIMANUS	FLORIDA CAVE AMPHIPOD
CRANGONYX HOBBSI	HOBBS' CAVE AMPHIPOD
LIGUUS FASCIATUS MATECUMBENSIS	FLORIDA TREE SNAIL
ORTHALICUS RESES RESES	STOCK ISLAND TREE SNAIL
PROCAMBARUS MILLERI	MIAMI CAVE CRAYFISH
CERACLEA FLORIDANA	FLORIDA CERACLEAN CADDISFLY
LIGUUS FASCIATUS SEPTENTRIONALIS	FLORIDA TREE SNAIL
LIGUUS FASCIATUS SOLIDUS	FLORIDA TREE SNAIL
ARGIALLAGMA PALLIDULUM	EVERGLADES SPRITE
ORTHALICUS FLORIDENSIS	BANDED TREE SNAIL
ORTHALICUS RESES NESODRYAS	FLORIDA KEYS TREE SNAIL
VILLOSA AMYGDALA	FLORIDA RAINBOW
ELLIPTIO BUCKLEYI	FLORIDA SHINY SPIKE
PLAUDITUS ALACHUA	MAYFLY
VERTIGO HEBARDI	KEYS VERTIGO

Appendix III: Ecological Community/System Classification for Tropical Florida Ecoregion

NAME	Grank	PATCH SIZE	EXTENT	FNAI COMMUNITY TYPE	EOCODE
ALGAL BED	G3	small/large patch	limited	Marine Algal Bed, Estuarine Algal Bed	
AQUATIC CAVE	G3	small patch	limited	Aquatic Cave	CSA
BEACH DUNE	G4	large patch	widespread	Beach Dune	CTS
BLACKWATER STREAM	G4	small/large patch	widespread	Blackwater Stream	CRC
COASTAL BERM	G3	small patch	restricted/endemic	Coastal Berm	CTW
COASTAL GRASSLAND	G3	small patch	limited	Coastal Grassland	CTX
COASTAL ROCK BARREN	G3	small patch	restricted/endemic	Coastal Rock Barren	CTL
COASTAL STRAND	G3	large patch	limited	Coastal Strand	CTT
COMPOSITE SUBSTRATE	G3	small/large patch	limited	Estuarine Composite Substrate, Marine Composite Substrate	CEE, CEM
CONSOLIDATED SUBSTRATE	G3	small/large patch	limited	Estuarine Consolidated Substrate, Marine Consolidated Substrate	CEA, CMA
CORAL REEF	G2	small/large patch	restricted/endemic	Marine/Estuarine Coral Reef	
FLATWOODS/PRAIRIE LAKE	G4	small/large patch	limited	Flatwoods/Prairie Lake	CLD
FLOODPLAIN MARSH	G3	small/large patch	widespread	Floodplain Marsh	CPD
FLORIDA SCRUB	G2	small/large patch	restricted/endemic	Scrub	CTA
HATRACK CYPRESS	G?	small/large	limited	Floodplain Swamp, Strand Swamp, Marl Prairie	CPC, CPE, CPQ
HYPERSALINE COASTAL SALT FLAT	G?	small patch	limited	Closest to Estuarine Tidal Marsh	CEF
MANGROVE	G3	large patch	limited	Marine/Estuarine Tidal Swamp	CMG,CEG
MARL PRAIRIE	G?	large patch	restricted/endemic	Marl Prairie	CPQ
MARSH LAKE	G4	small/large patch	widespread	Marsh Lake	CLB
MESIC FLATWOODS	G?	small/large patch	limited	Mesic Flatwoods	CTE
MESIC/PRAIRIE HAMMOCK	G4	small/large patch	limited	Prairie Hammock, some aspects of Xeric Hammock and/or Hydric Hammock	CTF, CTC/CPU
MOLLUSK REEF	G3	small patch	limited	Estuarine Mollusk Reef, Marine Mollusk Reef	CEI, CMI
OCTOCORAL BED	G2	small/large patch	restricted/endemic	Marine Octocoral Bed, Estuarine Octocoral Bed	CMC, CEC
PINE ROCKLAND	G1	large patch	restricted/endemic	Pine Rockland	CTH
RIVER FLOODPLAIN LAKE	G4	small patch	widespread	River Floodplain Lake	CLF
SCRUBBY FLATWOODS	G3	small/large patch	restricted/endemic	Scrubby Flatwoods	CTD
SEEPAGE STREAM	G4	small patch	widespread	Seepage Stream	CRA
SHELL MOUND	G3	small patch	limited	Shell Mound	CTY
SINKHOLE	G?	small patch	limited	Sinkhole	CTK

NAME	Grank	PATCH SIZE	EXTENT	FNAI COMMUNITY TYPE	EOCODE
SINKHOLE LAKE	G3	small patch	restricted/endemic	Sinkhole Lake	CLI
SPONGE BED	G2	small/large patch	restricted/endemic	Marine Sponge Bed, Estuarine Sponge Bed	CMD, CED
SPRING-RUN STREAMS	G2	small patch	limited	Spring-run Stream	CRD
SUBTROPICAL SEAGRASS BEDS	G2	small/large patch	limited	Estuarine Grassbed, Marine Grassbed	CEL, CML
SWAMP LAKE	G4	small/large patch	widespread	Swamp Lake	CLE
TERRESTRIAL CAVE	G3	small patch	limited	Terrestrial Cave	CSB
TIDAL MARSH	G4	small patch	widespread	Estuarine Tidal Marsh, Marine Tidal Marsh	CEF, CMF
TROPICAL BAYSWAMP	G?	small patch	restricted/endemic	Baygall (and characteristics of Rockland Hammock, Prairie Hammock, Hydric Hammock and even some Shell Mound at selected sites. This community typically occurs embedded in either a Swale or Marl Prairie matrix.)	CPS (CTJ, CTF, CPU, CTY)
TROPICAL HARDWOOD HAMMOCKS	G?	small/large patch	restricted/endemic	Rockland Hammock	CTJ
TROPICAL HYDRIC FLATWOODS	G?	large patch	limited	Closest to Wet Flatwoods (with some Strand Swamp characteristics)	CPN (CPE)
TROPICAL STRAND SWAMP FOREST	G?	large patch	restricted/endemic	Strand Swamp, Slough, and some characteristics of Rockland Hammock embedded within larger matrix (Fakahatchee Strand is a good example.)	CPE, CPF, CTJ
TROPICAL SWALE	G?	matrix	restricted/endemic	(Tropical) Swale	CPG
UNCONSOLIDATED SUBSTRATE	G5	small/large patch	widespread	Estuarine Consolidated Substrate, Marine Consolidated Substrate	CEA, CMA
WORM REEF	G1	small/large patch	restricted/endemic	Marine Worm Reef, Estuarine Worm Reef	

TROPICAL FLORIDA PLANTS: ASSESSMENT OF CONSERVATION GOALS BY TARGET

				FNAI			OTHER					
SCIENTIFIC NAME OF SPECIES	EOCODE	GRANK	GOAL	Total # Points	Total Viable Points	Total Included Points	Total # Points	Total Viable Points	Total Included Points	**Total Sites Captured**	Goal Met	Goal Likely Met
ACACIA CHORIOPHYLLA	PDFAB02060	G4	10	0	0	0	0	0	0	**0**	N	N
ACROSTICHUM AUREUM	PPPTE01010	G5	10	29	12	12	0	0	0	**12**	Y	Y
ACTINOSTACHYS PENNULA	PPSCH04010	G4G5	10	4	3	3	1	1	1	**4**	N	N
ADIANTUM MELANOLEUCUM	PPADI03090	G3G4	10	4	4	4	0	0	0	**4**	N	N
ADIANTUM TENERUM	PPADI030G0	G5	10	17	2	12	0	0	0	**12**	Y	Y
AESCHYNOMENE PRATENSIS VAR PRATENSIS	PDFAB04050	G5T1	10	0	0	0	2	2	0	**0**	N	N
AGERATUM LITTORALE	PDAST08040	G2G3	10	0	0	0	0	0	0	**0**	N	N
ALETRIS BRACTEATA	PMLIL01020	G2	10	0	0	0	0	0	0	**0**	N	N
ALVARADOA AMORPHOIDES	PDSIM02010	G5	10	7	4	4	3	3	3	**7**	N	N
AMORPHA HERBACEA VAR CRENULATA	PDFAB08071	G4G5T1	10	4	2	2	3	3	3	**5**	N	N
ANEMIA WRIGHTII	PPSCH01070	G2	10	9	9	9	0	0	0	**9**	N	Y
ARGYTHAMNIA BLODGETTII	PDEUP08030	G2	10	24	13	13	4	3	3	**16**	Y	Y
ARISTOLOCHIA PENTANDRA	PDARI010F0	G2G4	10	3	1	1	1	1	1	**2**	N	N
ASPLENIUM AURITUM	PPASP02040	G5	10	2	2	2	0	0	0	**2**	N	N
ASPLENIUM SERRATUM	PPASP021H0	G4G5	10	9	7	7	0	0	0	**7**	N	N
ASPLENIUM TRICHOMANES-DENTATUM	PPASP020B0	G5	10	11	5	5	0	0	0	**5**	N	N
ASPLENIUM X BISCAYNIANUM	PPASP022A0	G1	10	5	3	3	0	0	0	**3**	N	N
BASIPHYLLAEA CORALLICOLA	PMORC06010	G1G3	10	4	4	4	0	0	0	**4**	N	N
BOURRERIA CASSINIFOLIA	PDBOR07010	G3?	10	13	7	7	5	2	2	**9**	N	Y
BOURRERIA RADULA	PDBOR07030	G2G3	10	3	3	3	0	0	0	**3**	N	N
BRICKELLIA EUPATORIOIDES VAR. FLORIDANA	PDAST1H0G5	G5T1	10	11	3	3	2	2	2	**5**	N	N
BURMANNIA FLAVA	PMBUR02030	G5	10	2	1	1	1	1	1	**2**	N	Y
CAESALPINIA PAUCIFLORA	PDFAB0L0G0	G2G4	10	0	0	0	0	0	0	**0**	N	N
CALYPTRANTHES ZUZYGIUM	PDMRT010B0	G4	10	5	4	4	0	0	0	**4**	N	N
CAMPYLOCENTRUM PACHYRRHIZUM	PMORC0E040	G4?	10	3	2	2	1	1	1	**3**	N	N
CAMPYLONEURUM ANGUSTIFOLIUM	PPPOL04040	G4G5	10	2	2	2	1	1	1	**3**	N	N
CAMPYLONEURUM COSTATUM	PPPOL04020	G5	10	2	2	2	1	1	1	**3**	N	N
CANELLA WINTERIANA	PDCAN01010	G4G5	10	13	8	8	2	2	2	**10**	Y	Y
CATESBAEA PARVIFLORA	PDRUB08020	G2G3	10	5	3	3	0	0	0	**3**	N	N

				FNAI			OTHER					
SCIENTIFIC NAME OF SPECIES	EOCODE	GRANK	GOAL	Total # Points	Total Viable Points	Total Included Points	Total # Points	Total Viable Points	Total Included Points	**Total Sites Captured**	Goal Met	Goal Likely Met
CATOPSIS BERTERONIANA	PMBRO04010	G4	10	9	8	8	2	2	2	**10**	Y	Y
CATOPSIS FLORIBUNDA	PMBRO04020	G3G4	10	8	3	3	0	0	0	**3**	N	N
CATOPSIS NUTANS	PMBRO04040	G5?	10	1	1	1	0	0	0	**1**	N	N
CELTIS PALLIDA	PDULM01050	G4	10	1	1	1	0	0	0	**1**	N	N
CHAMAECRISTA LINEATA VAR KEYENSIS	PDFAB470F2	G5T2	10	17	10	10	0	0	0	**10**	Y	Y
CHAMAESYCE CUMULICOLA	PDEUP0D0Q0	G2	10	7	4	4	0	0	0	**4**	N	Y
CHAMAESYCE DELTOIDEA SSP ADHAERENS	PDEUP0D0S4	G2T1	10	8	8	8	7	7	7	**15**	Y	Y
CHAMAESYCE DELTOIDEA SSP DELTOIDEA	PDEUP0D0S1	G2T1	10	18	12	12	6	3	3	**15**	Y	Y
CHAMAESYCE DELTOIDEA SSP SERPYLLUM	PDEUP0D0S2	G2T1	10	8	7	7	0	0	0	**7**	N	N
CHAMAESYCE GARBERI	PDEUP0D0X0	G1	10	20	11	11	4	4	4	**15**	Y	Y
CHAMAESYCE PINETORUM	PDEUP0D1W0	G1Q	10	16	6	6	3	3	3	**9**	N	Y
CHAMAESYCE PORTERIANA VAR PORTERIANA	PDEUP0D202	G2T2	10	37	24	24	3	2	2	**26**	Y	Y
CHEILANTHES MICROPHYLLA	PPADI090K0	G5	10	2	2	2	0	0	0	**2**	N	N
CHEIROGLOSSA PALMATA	PPOPH03010	G4	10	8	5	5	0	0	0	**5**	N	N
CIENFUEGOSIA YUCATANENSIS	PDMAL0B030	G2G4	10	1	1	1	1	1	1	**2**	N	N
COLUBRINA CUBENSIS VAR FLORIDANA	PDRHA05041	G3T1	10	16	7	7	2	2	2	**9**	N	Y
CONRADINA GRANDIFLORA	PDLAM0D040	G3	10	1	1	1	0	0	0	**1**	N	N
CRANICHIS MUSCOSA	PMORC0P020	G4G5	10	0	0	0	0	0	0	**0**	N	N
CROSSOPETALUM ILICIFOLIUM	PDCEL04010	G2	10	56	15	15	17	7	7	**22**	Y	Y
CTENITIS SLOANEI	PPDRY04060	G5	10	8	7	7	6	6	6	**13**	Y	Y
CUPANIA GLABRA	PDSPN04020	G4	10	3	2	2	0	0	0	**2**	N	N
CYPERUS FLORIDANUS	PMCYP06190	G3	10	0	0	0	0	0	0	**0**	N	N
CYPERUS FULIGINEUS	PMCYP061A0	G3G5	10	0	0	0	2	2	2	**2**	N	N
CYRTOPODIUM PUNCTATUM	PMORC0R020	G5?	10	9	6	6	9	9	9	**15**	Y	Y
DIGITARIA PAUCIFLORA	PMPOA270P0	G1	10	5	5	5	1	1	1	**6**	N	N
DODONAEA ELAEAGNOIDES	?	G4	10	0	0	0	0	0	0	**0**	N	N
ELTROPLECTRIS CALCARATA	PMORC0Y010	G3?	10	2	2	2	0	0	0	**2**	N	N
ELYTRARIA CAROLINIENSIS VAR ANGUSTIFOLIA	PDACA0A021	G4T2	10	9	6	6	0	0	0	**6**	N	Y

				FNAI			OTHER					
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ENCYCLIA BOOTHIANA VAR ERYTHRONIOIDES	PMORC0Z022	G4T4	10	7	5	5	4	4	4	**9**	N	Y
ENCYCLIA COCHLEATA VAR TRIANDRA	PMORC0Z032	G4T2	10	7	6	6	0	0	0	**6**	N	Y
ENCYCLIA PYGMAEA	PMORC0Z070	G4G5	10	1	1	1	0	0	0	**1**	N	N
EPIDENDRUM NOCTURNUM	PMORC10090	G4G5	10	12	10	10	0	0	0	**10**	Y	Y
EPIDENDRUM STROBILIFERUM	PMORC100G0	G4	10	3	2	2	0	0	0	**2**	N	N
ERIOCHLOA MICHAUXII VAR SIMPSONII	PMPOA2Q042	G3G4TH	10	0	0	0	0	0	0	**0**	N	N
EUGENIA CONFUSA	PDMRT03090	G4G5	10	9	5	5	5	5	5	**10**	Y	Y
EUGENIA RHOMBEA	PDMRT030S0	G3G5	10	8	4	4	3	2	2	**6**	N	N
EUPATORIUM FRUSTRATUM	PDAST3P0N0	G1	10	0	0	0	0	0	0	**0**	N	N
EUPATORIUM VILLOSUM	PDAST3P200	G4G5	10	10	10	0	0	0	0	**0**	Y	Y
EUPHORBIA PINETORUM	PDEUP0Q2W0	G2	10	15	14	14	12	5	5	**19**	Y	Y
EVOLVULUS GRISEBACHII	PDCON09040	G2G3	10	0	0	0	0	0	0	**0**	N	N
EXOSTEMA CARIBAEUM	PDRUB0L010	G5	10	0	0	0	2	2	2	**2**	N	N
FORESTIERA SEGREGATA VAR PINETORUM	PDOLE020B1	G4?T2	10	30	12	12	0	0	0	**12**	Y	Y
GALACTIA PINETORUM	PDFAB1P0H0	G2Q	10	17	11	11	7	4	4	**15**	Y	Y
GALACTIA SMALLII	PDFAB1P0R0	G1Q	10	12	6	6	0	0	0	**6**	N	Y
GALEANDRA BEYRICHII	PMORC15010	G4G5	10	4	3	3	0	0	0	**3**	N	N
GLANDULARIA MARITIMA	PDVER0A070	G3	10	8	6	5	0	0	0	**5**	N	N
GOSSYPIUM HIRSUTUM	PDMAL0E020	G4G5	10	25	12	12	1	1	1	**13**	Y	Y
GUAJACUM SANCTUM	PDZYG02030	G4G5	10	20	12	12	1	1	1	**13**	Y	Y
GUZMANIA MONOSTACHIA	PMBRO05040	G4G5	10	7	6	6	1	1	1	**7**	N	N
GYMINDA LATIFOLIA	PDCEL06010	G4	10	8	6	6	4	4	4	**10**	Y	Y
GYMNOPOGON CHAPMANIANUS	PMPOA2Z030	G3	10	1	0	0	0	0	0	**0**	N	N
HALOPHILA JOHNSONII	PMHYD04050	G2	10	1	0	0	0	0	0	**0**	N	N
HARRISIA SIMPSONII	PDCAC13060	G2Q	10	32	15	15	1	1	1	**16**	Y	Y
HIPPOMANE MANCINELLA	PDEUP0U010	G5	10	20	11	11	0	0	0	**11**	Y	Y
HUPERZIA DICHOTOMA	PPLYC020A0	G3G4	10	1	1	1	0	0	0	**1**	N	N
HYPELATE TRIFOLIATA	PDSPN07010	G3G5	10	13	9	9	1	1	1	**10**	Y	Y
HYPERICUM EDISONIANUM	PDCLU030L0	G2	10	0	0	0	0	0	0	**0**	N	N
ILEX KRUGIANA	PDAQU010J0	G2G4	10	26	15	15	3	1	1	**16**	Y	Y
INDIGOFERA MUCRONATA VAR KEYENSIS	PDFAB220L1	G5?T1	10	3	3	3	4	3	3	**6**	N	N

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IONOPSIS UTRICULARIOIDES	PMORC1D020	G4G5	10	3	3	3	0	0	0	**3**	N	Y
IPOMOEA MICRODACTYLA	PDCON0A2Q0	G2	10	11	7	7	8	5	5	**12**	Y	Y
IPOMOEA TENUISSIMA	PDCON0A1J0	G2?	10	8	7	7	5	5	5	**12**	Y	Y
JACQUEMONTIA CURTISSII	PDCON0B030	G2	10	50	16	16	16	8	8	**24**	Y	Y
JACQUEMONTIA HAVANENSIS	PDCON0B040	G5	10	2	2	2	0	0	0	**2**	N	N
JACQUEMONTIA PENTANTHOS	PDCON0B070	G4G5	10	0	0	0	3	3	3	**3**	N	N
JACQUEMONTIA RECLINATA	PDCON0B090	G1	10	2	2	2	0	0	0	**2**	N	N
JACQUINIA KEYENSIS	PDTHP01030	G4	10	94	47	46	2	2	2	**48**	Y	Y
LANTANA CANESCENS	PDVER0C0V0	G3G4	10	3	3	3	0	0	0	**3**	N	N
LANTANA DEPRESSA VAR DEPRESSA	PDVER0C044	G2T1	10	12	8	8	16	7	7	**15**	Y	Y
LANTANA DEPRESSA VAR FLORIDANA	PDVER0C042	G2T2	10	12	8	8	0	0	0	**8**	N	Y
LANTANA DEPRESSA VAR SANIBELENSIS	PDVER0C045	G2T1	10	1	1	1	0	0	0	**1**	N	N
LECHEA CERNUA	PDCIS04010	G3	10	13	8	8	3	1	1	**9**	N	N
LECHEA LAKELAE	PDCIS04050	GH	10	1	0	0	0	0	0	**0**	N	N
LEIPHAIMOS PARASITICA	PDGEN0P0A0	G4	10	3	3	3	0	0	0	**3**	N	Y
LEPANTHOPSIS MELANANTHA	PMORC1L010	G3G5	10	1	0	0	0	0	0	**0**	N	N
LICARIA TRIANDRA	PDLAU06030	G4	10	3	0	0	0	0	0	**0**	N	N
LINUM ARENICOLA	PDLIN02020	G1G2	10	14	13	13	2	1	1	**14**	Y	Y
LINUM CARTERI VAR CARTERI	PDLIN02071	G2T1	10	6	5	5	3	1	1	**6**	N	Y
LINUM CARTERI VAR SMALLII	PDLIN02072	G2T2	10	6	4	4	1	1	1	**5**	N	N
LOMARIOPSIS KUNZEANA	PPDRY0J020	G3G4	10	4	3	3	0	0	0	**3**	N	N
MACRADENIA LUTESCENS	PMORC1Q010	G4G5	10	0	0	0	0	0	0	**0**	N	N
MAXILLARIA CRASSIFOLIA	PMORC1S020	G4G5	10	1	1	1	0	0	0	**1**	N	N
MAXILLARIA PARVIFLORA	PMORC1S1T0	G3G5	10	0	0	0	0	0	0	**0**	N	N
MICROGRAMMA HETEROPHYLLA	PPPOL07010	G4G5	10	5	3	3	0	0	0	**3**	N	N
NEVRODIUM LANCEOLATUM	PPPOL01010	G4	10	0	0	0	0	0	0	**0**	N	N
OKENIA HYPOGAEA	PDNYC0D010	G3	10	10	6	6	0	0	0	**6**	N	Y
ONCIDIUM BAHAMENSE	PMORC63010	G3	10	0	0	0	0	0	0	**0**	N	N
ONCIDIUM FLORIDANUM	PMORC1V060	G2Q	10	1	1	1	0	0	0	**1**	N	N
ONCIDIUM UNDULATUM	PMORC1V170	G4G5	10	1	1	1	0	0	0	**1**	N	N
OPUNTIA SPINOSISSIMA	PDCAC0D1A0	G3	10	1	1	1	0	0	0	**1**	N	N
OPUNTIA TRIACANTHA	PDCAC0D1G0	G2G4	10	6	5	5	2	2	2	**7**	N	N
PASSIFLORA MULTIFLORA	PDPAS010F0	G4	10	6	5	5	0	0	0	**5**	N	N
PASSIFLORA PALLENS	PDPAS010H0	G3G4	10	0	0	0	0	0	0	**0**	N	N

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PEPEROMIA HUMILIS	PDPIP01270	G5	10	0	0	0	0	0	0	**0**	N	N
PEPEROMIA OBTUSIFOLIA	PDPIP011C0	G5	10	8	6	6	0	0	0	**6**	N	Y
PERSEA HUMILIS	PDLAU0B050	G3	10	1	1	1	0	0	0	**1**	N	N
PHORADENDRON RUBRUM	PDVIS020W0	G3G5	10	2	2	2	0	0	0	**2**	N	N
PHYLLANTHUS PENTAPHYLLUS SSP FLORIDANUS	PDEUP130D2	G4G5T2	10	57	19	19	13	7	7	**26**	Y	Y
PICRAMNIA PENTANDRA	PDSIM05010	G4G5	10	4	1	1	1	1	1	**2**	N	N
PILOSOCEREUS BAHAMENSIS	?	G3	10	0	0	0	0	0	0	**0**	N	N
PILOSOCEREUS ROBINII	PDCAC0Z020	G1	10	9	7	7	1	1	1	**8**	N	Y
PISONIA FLORIDANA	PDNYC0E040	G1	10	2	2	2	0	0	0	**2**	N	N
PISONIA ROTUNDATA	PDNYC0E050	G1G3	10	0	0	0	0	0	0	**0**	N	N
PLEUROTHALLIS GELIDA	PMORC20050	G4	10	2	2	2	0	0	0	**2**	N	N
POINSETTIA (or EUPHORBIA) PINETORUM	PDEUP0Q2W0	G2	10	0	0	0	12	5	5	**5**	N	Y
POLYGALA BOYKINII VAR SPARSIFOLIA	PDPGL02062	G3G4T2Q	10	17	15	15	0	0	0	**15**	Y	Y
POLYGALA SMALLII	PDPGL021P0	G1	10	5	4	4	4	3	3	**7**	N	N
POLYRRHIZA LINDENII	PMORC22010	G2G4	10	9	7	7	0	0	0	**7**	N	Y
PRESCOTIA OLIGANTHA	PMORC25010	G4G5	10	1	1	1	0	0	0	**1**	N	N
PRUNUS MYRTIFOLIA	PDROS1C100	G4	10	8	7	7	0	0	0	**7**	N	Y
PSEUDOPHOENIX SARGENTII	PMARE0A010	G3G4	10	2	2	2	0	0	0	**2**	N	N
PSYCHOTRIA LIGUSTRIFOLIA	PDRUB1F0F0	G4	10	0	0	0	0	0	0	**0**	N	N
PTEROGLOSSASPIS ECRISTATA	PMORC27010	G2G3	10	3	3	3	3	3	3	**6**	N	N
RHIPSALIS BACCIFERA	PDCAC0G010	G4	10	0	0	0	0	0	0	**0**	N	N
RHYNCHOSIA SWARTZII	PDFAB3F0F0	G3	10	0	0	0	0	0	0	**0**	N	N
ROYSTONEA ELATA	PMARE0C020	G2Q	10	11	9	9	0	0	0	**9**	N	Y
SACHSIA POLYCEPHALA	PDAST86010	G2	10	20	14	14	10	5	5	**19**	Y	Y
SAVIA BAHAMENSIS	PDEUP18010	G4	10	4	3	3	0	0	0	**3**	N	N
SCHAEFFERIA FRUTESCENS	PDCEL0C020	G5	10	5	5	5	1	1	1	**6**	N	N
SCHIZACHYRIUM SERICATUM	PMPOA5D0A0	G1	10	0	0	0	1	0	0	**0**	N	N
SCUTELLARIA HAVENENSIS	PDLAM1U0L0	G3G4	10	0	0	0	5	2	2	**2**	N	N
SELAGINELLA EATONII	PPSEL010E0	G2?	10	6	4	4	1	1	1	**5**	N	N
SPHENOMERIS CLAVATA	PPDEN0A020	G3	10	8	6	6	0	0	0	**6**	N	N
SPIRANTHES COSTARICENSIS	PMORC2B070	G3G4	10	2	2	2	0	0	0	**2**	N	N
SPIRANTHES LANCEOLATA VAR PALUDICOLA	PMORC2B0F3	G4T1	10	1	0	0	0	0	0	**0**	N	N

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SPIRANTHES TORTA	PMORC2B0X0	G3G4	10	6	2	2	1	0	0	**2**	N	N
STILLINGIA SYLVATICA SSP TENUIS	PDEUP1B052	G5T2Q	10	0	0	0	0	0	0	**0**	N	N
STRUMPFIA MARITIMA	PDRUB1R010	G4	10	6	3	3	1	1	1	**4**	N	N
STYLISMA ABDITA	PDCON0H010	G2G3	10	12	6	6	0	0	0	**6**	N	Y
STYLOSANTHES CALCICOLA	PDFAB3V020	G3G4	10	4	2	2	1	0	0	**2**	N	N
SWIETENIA MAHAGONI	PDMLC04030	G3G4	10	20	13	13	0	0	0	**13**	Y	Y
TECTARIA FIMBRIATA	PPDRY0S0B0	G2G4	10	15	13	13	1	0	0	**13**	Y	Y
TEPHROSIA ANGUSTISSIMA VAR ANGUSTISSIMA	PDFAB3X011	G1TH	10	0	0	0	0	0	0	**0**	N	N
TEPHROSIA ANGUSTISSIMA VAR CORALLICOLA	PDFAB3X012	G1T1	10	2	1	1	1	0	0	**1**	N	N
TEPHROSIA ANGUSTISSIMA VAR CURTISSII	PDFAB3X013	G1T1	10	0	0	0	0	0	0	**0**	N	N
THELYPTERIS REPTANS	PPTHE051B0	G5	10	8	7	7	1	1	1	**8**	N	Y
THELYPTERIS SCLEROPHYLLA	PPTHE051H0	G3	10	3	3	3	0	0	0	**3**	N	N
THRINAX RADIATA	PMARE0F020	G4G5	10	60	24	22	0	0	0	**22**	Y	Y
TILLANDSIA PRUINOSA	PMBRO090D0	G4	10	5	5	5	0	0	0	**5**	N	Y
TRAGIA SAXICOLA	PDEUP1D0A0	G2	10	39	16	16	14	6	6	**22**	Y	Y
TREMA LAMARCKIANUM	PDULM03050	G5	10	0	0	0	3	0	0	**0**	N	N
TRICHOMANES HOLOPTERUM	PPHYM020A0	G4	10	1	1	1	0	0	0	**1**	N	N
TRICHOMANES KRAUSII	PPHYM020E0	G5	10	5	5	5	0	0	0	**5**	N	N
TRICHOMANES PUNCTATUM SSP FLORIDANUM	PPHYM020N1	G4T1	10	7	7	7	0	0	0	**7**	N	N
TRIPHORA CRAIGHEADII	PMORC2F010	G1	10	0	0	0	0	0	0	**0**	N	N
TRIPSACUM FLORIDANUM	PMPOA68020	G2	10	25	15	15	7	3	3	**18**	Y	Y
TROPIDIA POLYSTACHYA	PMORC2G010	G3G5	10	0	0	0	0	0	0	**0**	N	N
VALLESIA ANTILLANA	PDAPO0S010	G4	10	4	2	4	1	1	1	**5**	N	N
VANILLA BARBELLATA	PMORC2H010	G4G5	10	7	7	7	1	1	1	**8**	N	Y
VANILLA DILLONIANA	PMORC2H020	G3G4	10	0	0	0	0	0	0	**0**	N	N
VANILLA INODORA	?	G1	10	0	0	0	0	0	0	**0**	N	N
VANILLA PHAEANTHA	PMORC2H050	G3	10	2	2	2	0	0	0	**2**	N	N
VERNONIA BLODGETTII	PDAST9S060	G3	10	8	4	4	0	0	0	**4**	N	Y
ZANTHOXYLUM CORIACEUM	PDRUT0L060	G3G4	10	2	2	2	0	0	0	**2**	N	N
ZANTHOXYLUM FLAVUM	PDRUT0L0N0	G3?	10	3	2	2	0	0	0	**2**	N	N
ZEPHYRANTHES SIMPSONII	PMLIL270B0	GH	10	1	1	1	0	0	0	**1**	N	N

TROPICAL FLORIDA ANIMALS: ASSESSMENT OF CONSERVATION GOALS BY TARGET

				FNAI			OTHER			SCHAs			
SCIENTIFIC NAME OF SPECIES	EOCODE	GRANK	GOAL	Total # Points	Total Viable Points	Total Included Points	Total # Points	Total Viable Points	Total Included Points	Total # SHCA/ Habmodel EOs Added	**Total Sites Captured**	Goal Met	Goal Likely Met
FISHES													
GAMBUSIA RHIZOPHORAE	AFCNC02080	G3	10	15	3	3	0	0	0	0	**3**	N	Y
GOBIOMORUS DORMITOR	AFCQM03010	G5	10	3	0	0	0	0	0	0	**0**	N	N
GOBIONELLUS STIGMATURUS	AFCQN07130	G2	10	7	2	2	0	0	0	0	**2**	N	Y?
MENIDIA CONCHORUM	AFCND02030	G2Q	10	23	0	0	0	0	0	0	**0**	N	Y?
MICROPHIS BRACHYURUS LINEATUS	AFCPB09010	G4G5	10	0	0	0	0	0	0	0	**0**	N	N
RIVULUS MARMORATUS	AFCNG01020	G5	10	17	8	8	0	0	0	0	**8**	N	Y
HERPETOFAUNA													
CARETTA CARETTA	ARAAA01010	G3	10	13	8	8	5	0	0	0	**8**	N	Y?
CHELONIA MYDAS	ARAAA02010	G3	10	2	2	2	2	0	0	0	**2**	N	N
CROCODYLUS ACUTUS	ARABB02010	G2	10	3	3	3	12	0	0	0	**3**	N	N?
CROTALUS ADAMANTEUS	ARADE02010	G5	10	22	8	8	0	0	0	0	**8**	N	Y
DIADOPHIS PUNCTATUS ACRICUS	ARADB10011	G5T1	10	7	4	4	0	0	0	0	**4**	N	N
DRYMARCHON CORAIS COUPERI	ARADB11011	G4T3	10	60	11	11	0	0	0	0	**11**	Y	Y
ELAPHE OBSOLETA ROSSALLENI	ARADB13034	G5T3	10	0	0	0	1	1	0	0	**0**	N	N
ERETMOCHELYS IMBRICATA	ARAAA03010	G3	10	3	3	3	2	0	0	0	**3**	N	N
EUMECES EGREGIUS EGREGIUS	ARACH01041	G4T2	10	18	6	6	0	0	0	0	**6**	N	Y?
GOPHERUS POLYPHEMUS	ARAAF01030	G3	10	42	17	17	15	3	0	0	**17**	Y	Y
LAMPROPELTIS GETULA FLORIDANA	ARADB19022	G5T4	10	0	0	0	11	5	5	0	**5**	N	N?
MALACLEMYS TERRAPIN RHIZOPHORARUM	ARAAD06015	G4T2	10	14	11	11	0	0	0	0	**11**	Y	Y
SCELOPORUS WOODI	ARACF14160	G3	10	2	0	0	1	0	0	0	**0**	N	N
STORERIA DEKAYI POP 1 (VICTA)	ARADB34016	G5T1Q	10	6	1	1	0	0	0	0	**1**	N	N
TANTILLA OOLITICA	ARADB35060	G1G2Q	10	11	1	1	0	0	0	0	**1**	N	N
THAMNOPHIS SAURITUS POP 1 (SACKENI)	ARADB36125	G5T1Q	10	6	2	2	0	0	0	0	**2**	N	N
BIRDS													
AJAIA AJAJA	ABNGE05010	G5	10	48	30	28	28	25	3	0	**31**	Y	Y

				FNAI			OTHER			SCHAs			
SCIENTIFIC NAME OF SPECIES	EOCODE	GRANK	GOAL	Total # Points	Total Viable Points	Total Included Points	Total # Points	Total Viable Points	Total Included Points	Total # SHCA/ Habmodel EOs Added	**Total Sites Captured**	Goal Met	Goal Likely Met
AMMODRAMUS MARITIMUS MIRABILIS	ABPBXA0065	G4T1	10	7	5	5	0	0	0	0	**5**	N	N
ANAS FULVIGULA	ABNJB10050	G4	10	0	0	0	8	2	2	1	**3**	N	Y?
ARAMUS GUARAUNA	ABNMJ01010	G5	10	3	3	3	3	1	0	0	**3**	N	Y
ARDEA HERODIAS OCCIDENTALIS	ABNGA04014	G5T2	10	122	82	77	23	23	10	0	**87**	Y	Y
BUTEO BRACHYURUS	ABNKC19060	G4?	10	24	23	23	38	32	0	0	**23**	Y	Y?
CARACARA PLANCUS	ABNKD02010	G5	10	10	3	3	5	0	0	0	**3**	N	N
CHARADRIUS ALEXANDRINUS	ABNNB03030	G4	10	4	2	2	11	1	1	0	**3**	N	N
CHARADRIUS MELODUS	ABNNB03070	G3	10	13	10	10	32	16	0	0	**10**	Y	Y
COCCYZUS MINOR	ABNRB02030	G4	10	17	14	14	1	1	0	9	**23**	Y	Y
COLUMBA LEUCOCEPHALA	ABNPB01050	G3	10	168	71	66	1	1	0	4	**70**	Y	Y
DENDROICA DISCOLOR PALUDICOLA	ABPBX03192	G5T3	10	31	15	11	0	0	0	0	**11**	Y	Y
DENDROICA PETECHIA GUNDLACHI	ABPBX03014	G5T4	10	4	3	3	0	0	0	0	**3**	N	Y
EGRETTA RUFESCENS	ABNGA06060	G4	10	57	20	18	4	2	0	0	**18**	Y	Y?
EGRETTA THULA	ABNGA06030	G5	10	60	31	31	38	26	1	0	**32**	Y	Y?
EGRETTA TRICOLOR	ABNGA06050	G5	10	91	64	64	80	65	0	0	**64**	Y	Y?
ELANOIDES FORFICATUS	ABNKC04010	G4	10	15	13	13	20	18	0	0	**13**	Y	Y?
EUDOCIMUS ALBUS	ABNGE01010	G5	10	59	32	32	44	39	6	0	**38**	Y	Y?
FALCO PEREGRINUS	ABNKD06070	G4	10	12	9	9	4	4	1	0	**10**	Y	Y
HALIAEETUS LEUCOCEPHALUS	ABNKC10010	G4	10	92	68	64	7	1	0	0	**64**	Y	Y
MYCTERIA AMERICANA	ABNGF02010	G4	10	32	16	16	30	13	0	0	**16**	Y	Y?
NYCTANASSA VIOLACEA	ABNGA13010	G5	10	10	6	6	3	1	0	0	**6**	N	Y?
PANDION HALIAETUS	ABNKC01010	G5	10	35	19	19	16	6	0	0	**19**	Y	Y
PELECANUS OCCIDENTALIS	ABNFC01020	G4	10	55	28	26	65	41	0	0	**26**	Y	Y
PICOIDES BOREALIS	ABNYF07060	G3	10	21	18	18	7	7	0	0	**18**	Y	Y?
PLEGADIS FALCINELLUS	ABNGE02010	G5	10	8	2	2	6	2	0	0	**2**	N	N?
RALLUS LONGIROSTRIS INSULARUM	ABNME05013	G5T3	10	4	3	3	0	0	0	0	**3**	N	Y?
ROSTRHAMUS SOCIABILIS PLUMBEUS	ABNKC07011	G4G5T1	10	11	8	8	8	7	0	0	**8**	N	N
RYNCHOPS NIGER	ABNNM14010	G5	10	12	11	11	24	3	0	0	**11**	Y	Y?
SITTA PUSILLA	ABPAZ01040	G5	10	0	0	0	0	0	0	0	**0**	N	Y?
STERNA ANTILLARUM	ABNNM08100	G4	10	64	29	29	153	57	0	0	**29**	Y	Y

				FNAI			OTHER			SCHAs			
SCIENTIFIC NAME OF SPECIES	EOCODE	GRANK	GOAL	Total # Points	Total Viable Points	Total Included Points	Total # Points	Total Viable Points	Total Included Points	Total # SHCA/ Habmodel EOs Added	**Total Sites Captured**	Goal Met	Goal Likely Met
STERNA DOUGALLII	ABNNM08060	G5	10	14	10	9	15	9	0	0	**9**	N	N
STERNA FUSCATA	ABNNM08150	G5	10	2	1	1	0	0	0	0	**1**	N	N?
TYRANNUS DOMINICENSIS	ABPAE52070	G5	10	0	0	0	0	0	0	0	**0**	N	Y
VIREO ALTILOQUUS	ABPBW01250	G5	10	48	14	12	2	0	0	12	**24**	Y	Y
MAMMALS													
CORYNORHINUS RAFINESQUII	AMACC08020	G3G4	10	1	1	1	0	0	0	0	**1**	N	N
EUMOPS GLAUCINUS FLORIDANUS	AMACD02031	G5T1	10	2	0	0	1	0	0	0	**0**	N	N
FELIS CONCOLOR CORYI	AMAJH01021	G5T1	10	7	5	5	0	0	0	0	**5**	N	N
MUSTELA FRENATA PENINSULAE	AMAJF02033	G5T3	10	1	0	0	1	0	0	0	**0**	N	N
MUSTELA VISON MINK POP 1	AMAJF02053	G5T2	10	2	0	0	0	0	0	0	**0**	N	Y
NEOTOMA FLORIDANA SMALLI	AMAFF08012	G5T1	10	19	15	15	0	0	0	0	**15**	Y	Y?
ODOCOILEUS VIRGINIANUS CLAVIUM	AMALC02021	G5T1	10	16	10	10	0	0	0	0	**10**	Y	Y?
ORYZOMYS PALUSTRIS NATATOR	AMAFF01013	G5T2Q	10	9	6	6	0	0	0	0	**6**	N	N
PEROMYSCUS GOSSYPINUS ALLAPATICOLA	AMAFF03081	G5T1Q	10	15	13	13	0	0	0	0	**13**	Y	Y?
SCIURUS NIGER AVICENNIA	AMAFB07041	G5T2	10	3	2	0	0	0	0	0	**0**	N	N
SIGMODON HISPIDUS EXSPUTUS	AMAFF07011	G5T2	10	2	1	1	0	0	0	0	**1**	N	N
SYLVILAGUS PALUSTRIS HEFNERI	AMAEB01031	G5T1	10	18	13	13	0	0	0	0	**13**	Y	Y?
TRICHECHUS MANATUS	AMAKA01010	G2	10	3	3	2	0	0	0	0	**2**	N	N
URSUS AMERICANUS FLORIDANUS	AMAJB01011	G5T2	10	8	7	7	0	0	0	0	**7**	N	N
INVERTEBRATES													
CRANGONYX GRANDIMANUS	ICMAL06020	G2	10	1	0	0	0	0	0	0	**0**	N	N
CRANGONYX HOBBSI	ICMAL06030	G2G3	10	1	0	0	0	0	0	0	**0**	N	N
EUNICA TATILA TATILISTA	IILEPL6021	G4T2?	10	6	3	3	0	0	0	0	**3**	N	N
HERACLIDES ARTISTODEMUS PONCEANUS	IILEP94131	G4T1	10	6	6	6	0	0	0	0	**6**	N	N
LIGUUS FASCIATUS MATECUMBENSIS	IMGAS44011	G3T2	10	6	3	3	0	0	0	0	**3**	N	N

				FNAI			OTHER			SCHAs			
SCIENTIFIC NAME OF SPECIES	EOCODE	GRANK	GOAL	Total # Points	Total Viable Points	Total Included Points	Total # Points	Total Viable Points	Total Included Points	Total # SHCA/ Habmodel EOs Added	**Total Sites Captured**	Goal Met	Goal Likely Met
LIGUUS FASCIATUS SEPTENTRIONALIS	?	G3T2	10	0	0	0	0	0	0	0	**0**	N	N
LIGUUS FASCIATUS SOLIDUS	?	G3TX	10	0	0	0	0	0	0	0	**0**	N	N
NEHALENNIA PALLIDULA	IIODO74040	G3	10	0	0	0	6	6	6	0	**6**	N	N
ORTHALICUS FLORIDENSIS	IMGAS45010	G3	10	0	0	0	4	4	4	0	**4**	N	Y?
ORTHALICUS RESES NESODRYAS	IMGAS45021	G2T2	10	0	0	0	2	2	2	0	**2**	N	Y?
ORTHALICUS RESES RESES	IMGAS45022	G2T1	10	2	1	1	2	0	0	0	**1**	N	N
PROCAMBARUS MILLERI	ICMAL14170	G1	10	1	0	0	0	0	0	0	**0**	N	N
VERTIGO HEBARDI	IMGAS20160	G1	10	0	0	0	6	6	6	0	**6**	N	N

TROPICAL FLORIDA NATURAL COMMUNITY TYPES: ASSESSMENT OF CONSERVATION GOALS BY TARGET

NAME OF COMMUNITY	EOCODE	GRANK	PATCH SIZE	EXTENT	GOAL	SUBECOREGIONAL GOAL	Total FNAI Occurrences	Total Viable FNAI Occur.	Total (FNAI) Selected	Other Occur.	Total Included Occur.	Total Portfolio Sites	**Overall Goal Met?**	Subregional Goal Met?	# of Matrix-sized Sites
ALGAL BED	?	G3	small/large patch	limited	10	1 per suitable subregion	0	0	0	0	0	0	N	N	N/A
AQUATIC CAVE	CSA0000000	G3	small patch	limited	13	1 per subregion	0	0	0	0	0	0	N	N	N/A
BEACH DUNE	CTS0000000	G4	large patch	widespread	5	At least 1 per suitable subregion	29	27	10	0	10	6	Y	Y	N/A
BLACKWATER STREAM	CRC0000000	G4	small/large patch	widespread	5	1 per suitable subregion	0	0	0	0	0	0	N	N	N/A
COASTAL BERM	CTW0000000	G3	small patch	restricted/endemic	25	At least 10 per subregion (in 2 subregions)	21	16	16	3	19	11	N	N	N/A
COASTAL GRASSLAND	CTX0000000	G3	small patch	limited	13	At least 2 per coastal subregion	7	7	7	0	7	3	N	N	N/A
COASTAL ROCK BARREN	CTL0000000	G3	small patch	restricted/endemic	25	Predominantly only in 1 subregion	19	19	19	0	19	9	N	Y	N/A
COASTAL STRAND	CTT0000000	G3	large patch	limited	9	At least 2 per coastal subregion	8	8	8	0	8	4	N	N	N/A
COMPOSITE SUBSTRATE	two	G3	small/large patch	limited	10	1 per suitable subregion	14	14	14	0	14	2	Y	N	N/A
CONSOLIDATED SUBSTRATE	two	G3	small/large patch	limited	10	1 per suitable subregion	4	3	3	0	3	1	N	N	N/A
CORAL REEF	two	G2	small/large patch	restricted/endemic	20	only in one subregion	0	0	0	4	4	4	N	Y	N/A
FLATWOODS/PRAIRIE LAKE	CLD0000000	G4	small/large patch	limited	10	1 per suitable subregion	0	0	0	0	0	0	N	N	N/A
FLOODPLAIN MARSH	CPD0000000	G3	small/large patch	widespread	6	Likely only in 1 subregion	0	0	0	3	3	2	N	Y	N/A
FLORIDA SCRUB	CTA0000000	G2	small/large patch	restricted/endemic	25	At least 3 per subregion (only 3 subregions in tropical)	28	15	15	10	25	6	Y?	N	N/A
HATRACK CYPRESS	N/A	G?	small/large	limited	10	At least 2 per subregion if possible (only 3 subregions likely)	N/A	N/A	N/A	13	13	6	Y	N	N/A
HYPERSALINE COASTAL SALT FLAT	N/A	G?	small patch	limited	13	At least 1 per subregion (coastal subregions only)	2	2	2	3	5	2	N	N	N/A
MANGROVE	two	G3	large patch	limited	9	At least 2 per subregion (in all coastal subregions)	28	15	11	4	15	11	Y	Y	N/A
MARL PRAIRIE	CPQ0000000	G?	large patch	restricted/endemic	18	At least 2 per suitable subregion if possible	4	4	4	9	13	7	N	N	N/A
MARSH LAKE	CLB0000000	G4	small/large patch	widespread	5	1 per suitable subregion	0	0	0	0	0	0	N	N	N/A
MESIC FLATWOODS	CTE0000000	G?	small/large patch	limited	10	At least 2 per suitable subregion	2	2	2	8	10	8	Y	Y	N/A
MESIC/PRAIRIE HAMMOCK	CTF0000000	G4	small/large patch	limited	10	At least 1 per suitable subregion (only 1 possible)	3	3	3	0	3	1	N	Y	N/A
MOLLUSK REEF	two	G3	small patch	limited	13	1 per suitable subregion	0	0	0	0	0	0	N	N	N/A
OCTOCORAL BED	two	G2	small/large patch	restricted/endemic	20	1 per suitable subregion	0	0	0	0	0	0	N	N	N/A
PINE ROCKLAND	CTH0000000	G1	large patch	restricted/endemic	18	At least 5 per subregion (only in 2 subregions)	62	38	38	2	40	5	Y	Y	N/A
RIVER FLOODPLAIN LAKE	CLF0000000	G4	small patch	widespread	5	1 per suitable subregion	0	0	0	0	0	0	N	N	N/A
SCRUBBY FLATWOODS	CTD0000000	G3	small/large patch	restricted/endemic	25	At least 2 per suitable subregion (probably only 3 subregions)	1	0	0	9	9	6	N	N	N/A
SEEPAGE STREAM	CRA0000000	G4	small patch	widespread	5	1 per suitable subregion	0	0	0	0	0	0	N	N	N/A
SHELL MOUND	CTY0000000	G3	small patch	limited	13	2 per coastal subregion	24	21	15	0	15	7	Y	N	N/A
SINKHOLE	CTK0000000	G?	small patch	limited	13	1 per subregion	1	1	1	1	2	2	N	N	N/A
SINKHOLE LAKE	CLI0000000	G3	small patch	restricted/endemic	20	3 per suitable subregion	1	0	0	0	0	0	N	N	N/A
SPONGE BED	two	G2	small/large patch	restricted/endemic	20	1 per suitable subregion	1	1	1	0	1	1	N	N	N/A
SPRING-RUN STREAMS	CRD0000000	G2	small patch	limited	13	1 per suitable subregion	0	0	0	0	0	0	N	N	N/A
SUBTROPICAL SEAGRASS BEDS	two	G2	small/large patch	limited	10	1 per suitable subregion	1	1	1	9	10	10	Y	N?	N/A
SWAMP LAKE	CLE0000000	G4	small/large patch	widespread	5	1 per suitable subregion	4	4	4	0	4	1	N	N	N/A

NAME OF COMMUNITY	EOCODE	GRANK	PATCH SIZE	EXTENT	GOAL	SUBECOREGIONAL GOAL	Total FNAI Occurrences	Total Viable FNAI Occur.	Total (FNAI) Selected	Other Occur.	Total Included Occur.	Total Portfolio Sites	**Overall Goal Met?**	Subregional Goal Met?	# of Matrix-sized Sites
TERRESTRIAL CAVE	CSB0000000	G3	small patch	limited	13	1 per suitable subregion	0	0	0	0	0	0	N	N	N/A
TIDAL MARSH	two	G4	small patch	widespread	6	At least 1 per subregion (in potentially 4 subregions)	7	6	3	3	6	3	Y	N	N/A
TROPICAL BAYSWAMP	N/A	G?	small	restricted/endemic	25	At least 5 per subregion if possible (only 3 subregions likely)	2	1	1	24	25	5	Y	Y	N/A
TROPICAL HARDWOOD HAMMOCKS	N/A	G?	small/large patch	restricted/endemic	20	At least 3 per subregion (all 5 subregions possible)	201	114	61	11	72	18	Y	Y	N/A
TROPICAL HYDRIC FLATWOODS	N/A	G?	large patch	limited	9	Only in two subregion (at least 2 per subregion)	5	5	4	7	11	5	Y	Y	N/A
TROPICAL STRAND SWAMP FOREST	N/A	G?	large patch	restricted/endemic	18	At 5 per suitable subregion (only 2 subregions)	12	10	10	5	15	7	N	Y	N/A
TROPICAL SWALE	CPG0000000	G?	matrix	restricted/endemic	10	within subregion anthropogenic barriers	0	0	0	12	12	7	Y	Y	12
UNCONSOLIDATED SUBSTRATE	two	G5	small/large patch	widespread	5	1 per suitable subregion	13	12	12	0	12	2	Y	N?	N/A
WORM REEF	two	G1	small/large patch	restricted/endemic	20	1 per suitable subregion	0	0	0	0	0	0	N	N	N/A

Appendix VII: Summary Statistics for Each Portfolio Site (2001)

TROPICAL FLORIDA: SUMMARY STATISTICS FOR EACH PORTFOLIO SITE (as calculated in 2001)

ID #	PORTFOLIO SITE NAME	DESCRIPTION	ACRES	PERCENT
1	Western Okeechobee Marshlands	open water	5,614	15%
1	Western Okeechobee Marshlands	other private land	31,902	85%
		total	37,516	
2	Northeastern Okeechobee Buffer	open water	20	0%
2	Northeastern Okeechobee Buffer	other private land	11,196	100%
		total	11,216	
3	Southern Okeechobee Marshlands	open water	248	6%
3	Southern Okeechobee Marshlands	other private land	3,761	94%
		total	4,009	
4	Southern Okeechobee Rookery	open water	16	2%
4	Southern Okeechobee Rookery	other private land	750	98%
		total	766	
5	Jonathan Dickinson-Corbett Macrosite	existing conservation land	350	99%
5	Jonathan Dickinson-Corbett Macrosite	other private land	2	1%
		total	352	
6	Loxahatchee NWR	existing conservation land	151,720	98%
6	Loxahatchee NWR	proposed conservation land	1,894	1%
6	Loxahatchee NWR	other private land	637	0%
		total	154,251	
7	Northern CREW Flatwoods-Florida Panther Site	existing conservation land	671	2%
7	Northern CREW Flatwoods-Florida Panther Site	open water	219	1%
7	Northern CREW Flatwoods-Florida Panther Site	proposed conservation land	3,239	9%
7	Northern CREW Flatwoods-Florida Panther Site	other private land	31,306	88%
		total	35,435	
8	Estero Bay Conservation Complex	existing conservation land	3,425	25%
8	Estero Bay Conservation Complex	open water	4,977	37%
8	Estero Bay Conservation Complex	proposed conservation land	2,071	15%
8	Estero Bay Conservation Complex	other private land	2,982	22%
		total	13,455	
9	CREW Macrosite	existing conservation land	27,872	45%
9	CREW Macrosite	open water	35	0%
9	CREW Macrosite	proposed conservation land	25,400	41%
9	CREW Macrosite	other private land	8,895	14%
		total	62,202	
10	Florida Panther Landscape Linkages	existing conservation land	2	0%
10	Florida Panther Landscape Linkages	open water	514	1%
10	Florida Panther Landscape Linkages	indian reservation	1	0%
10	Florida Panther Landscape Linkages	proposed conservation land	3,560	4%
10	Florida Panther Landscape Linkages	other private land	82,179	95%
		total	86,256	
11	Panther Glades Macrosite	open water	14	0%
11	Panther Glades Macrosite	indian reservation	188	1%
11	Panther Glades Macrosite	proposed conservation land	22,780	61%
11	Panther Glades Macrosite	other private land	14,530	39%
		total	37,512	
12	Holey Land-Rotenberger	existing conservation land	66,937	96%
12	Holey Land-Rotenberger	indian reservation	2,932	4%
12	Holey Land-Rotenberger	proposed conservation land	32	0%
12	Holey Land-Rotenberger	other private land	60	0%
		total	69,961	
13	Southwestern Lee County Natural Community Mosaic Site	other private land	432	100%
		total	432	

ID #	PORTFOLIO SITE NAME	DESCRIPTION	ACRES	PERCENT
14	Northwestern Collier County Habitat Mosaic	existing conservation land	356	3%
14	Northwestern Collier County Habitat Mosaic	open water	820	6%
14	Northwestern Collier County Habitat Mosaic	other private land	12,450	91%
		total	13,626	
15	Central Everglades Native American Lands	existing conservation land	453	0%
15	Central Everglades Native American Lands	open water	31	0%
15	Central Everglades Native American Lands	indian reservation	123,846	99%
15	Central Everglades Native American Lands	proposed conservation land	4	0%
15	Central Everglades Native American Lands	other private land	453	0%
		total	124,787	
16	Central Glades WCAs	existing conservation land	676,369	93%
16	Central Glades WCAs	open water	2,320	0%
16	Central Glades WCAs	indian reservation	49	0%
16	Central Glades WCAs	proposed conservation land	35,989	5%
16	Central Glades WCAs	other private land	15,823	2%
		total	730,550	
17	Scaly Stem Prairie	other private land	108	100%
		total	108	
18	Northwestern Broward Flatwoods	existing conservation land	51	16%
18	Northwestern Broward Flatwoods	other private land	260	84%
		total	311	
19	Big Cypress National Preserve	existing conservation land	721,265	99%
19	Big Cypress National Preserve	open water	73	0%
19	Big Cypress National Preserve	indian reservation	8	0%
19	Big Cypress National Preserve	proposed conservation land	105	0%
19	Big Cypress National Preserve	other private land	4,689	1%
		total	726,140	
20	FL Panther NWR-Golden Gate Estates-Picayune Strand SF	existing conservation land	55,217	45%
20	FL Panther NWR-Golden Gate Estates-Picayune Strand SF	open water	60	0%
20	FL Panther NWR-Golden Gate Estates-Picayune Strand SF	proposed conservation land	40,590	33%
20	FL Panther NWR-Golden Gate Estates-Picayune Strand SF	other private land	26,252	21%
		total	122,119	
21	Western Collier County Scrubby Flatwoods Sites	open water	24	4%
21	Western Collier County Scrubby Flatwoods Sites	other private land	566	96%
		total	590	
22	Rookery Bay-10,000 Islands NWR Conservation Complex	existing conservation land	50,281	59%
22	Rookery Bay-10,000 Islands NWR Conservation Complex	open water	9,796	11%
22	Rookery Bay-10,000 Islands NWR Conservation Complex	proposed conservation land	2	0%
22	Rookery Bay-10,000 Islands NWR Conservation Complex	other private land	25,119	29%
		total	85,198	
23	Rookery Bay-10,000 Islands-Cape Romano Aquatic Preserves	existing conservation land	132	0%
23	Rookery Bay-10,000 Islands-Cape Romano Aquatic Preserves	open water	35,392	97%
23	Rookery Bay-10,000 Islands-Cape Romano Aquatic Preserves	other private land	853	2%
		total	36,377	
24	Marco Island Shorebird Site	open water	26	24%
24	Marco Island Shorebird Site	other private land	83	76%
		total	109	
25	Fakahatchee Strand	existing conservation land	88,256	89%
25	Fakahatchee Strand	open water	1,582	2%
25	Fakahatchee Strand	proposed conservation land	7,498	8%
25	Fakahatchee Strand	other private land	2,080	2%
		total	99,416	
26	Hugh Taylor Birch SRA	existing conservation land	102	95%
26	Hugh Taylor Birch SRA	other private land	5	5%
		total	107	

ID #	PORTFOLIO SITE NAME	DESCRIPTION	ACRES	PERCENT
27	John Lloyd SRA	existing conservation land	560	51%
27	John Lloyd SRA	open water	424	38%
27	John Lloyd SRA	other private land	123	11%
		total	1,107	
28	Oleta River SRA Conservation Complex	existing conservation land	1,286	69%
28	Oleta River SRA Conservation Complex	open water	32	2%
28	Oleta River SRA Conservation Complex	other private land	541	29%
		total	1,859	
29	Biscayne College Pineland	other private land	60	100%
		total	60	
30	Everglades National Park	existing conservation land	1,533,823	100%
30	Everglades National Park	open water	2,726	0%
30	Everglades National Park	proposed conservation land	1,018	0%
30	Everglades National Park	other private land	542	0%
		total	1,538,109	
31	Virginia Key	open water	617	41%
31	Virginia Key	other private land	894	59%
		total	1,511	
32	Crandon Park	existing conservation land	895	57%
32	Crandon Park	open water	375	24%
32	Crandon Park	other private land	311	20%
		total	1,581	
33	Bill Baggs SRA	existing conservation land	423	99%
33	Bill Baggs SRA	open water	3	1%
		total	426	
34	South Dade Pine Rockland Macrosite	existing conservation land	8,562	39%
34	South Dade Pine Rockland Macrosite	open water	600	3%
34	South Dade Pine Rockland Macrosite	proposed conservation land	305	1%
34	South Dade Pine Rockland Macrosite	other private land	12,724	57%
		total	22,191	
35	Biscayne National Park	existing conservation land	173,306	96%
35	Biscayne National Park	open water	2,911	2%
35	Biscayne National Park	other private land	3,500	2%
		total	179,717	
36	Model Lands Basin	existing conservation land	42,129	46%
36	Model Lands Basin	open water	4,787	5%
36	Model Lands Basin	proposed conservation land	35,330	39%
36	Model Lands Basin	other private land	8,390	9%
		total	90,636	
37	Biscayne Bay Aquatic Preserve-Card Sound	existing conservation land	2	0%
37	Biscayne Bay Aquatic Preserve-Card Sound	open water	14,095	100%
37	Biscayne Bay Aquatic Preserve-Card Sound	proposed conservation land	6	0%
37	Biscayne Bay Aquatic Preserve-Card Sound	other private land	59	0%
		total	14,162	
38	Key Largo-Pennekamp Macrosite	existing conservation land	71,290	75%
38	Key Largo-Pennekamp Macrosite	open water	19,060	20%
38	Key Largo-Pennekamp Macrosite	proposed conservation land	1,542	2%
38	Key Largo-Pennekamp Macrosite	other private land	3,171	3%
		total	95,063	
39	Plantation Key Tropical Hammocks	existing conservation land	330	41%
39	Plantation Key Tropical Hammocks	open water	27	3%
39	Plantation Key Tropical Hammocks	proposed conservation land	114	14%
39	Plantation Key Tropical Hammocks	other private land	327	41%
		total	798	

ID #	PORTFOLIO SITE NAME	DESCRIPTION	ACRES	PERCENT
40	Windley Key Tropical Hammocks	existing conservation land	31	10%
40	Windley Key Tropical Hammocks	open water	35	11%
40	Windley Key Tropical Hammocks	other private land	248	79%
		total	314	
41	Upper Matecumbe Key Tropical Hammocks	existing conservation land	1	0%
41	Upper Matecumbe Key Tropical Hammocks	open water	18	6%
41	Upper Matecumbe Key Tropical Hammocks	proposed conservation land	141	46%
41	Upper Matecumbe Key Tropical Hammocks	other private land	147	48%
		total	307	
42	Lignumvitae Key	existing conservation land	10,389	99%
42	Lignumvitae Key	open water	127	1%
42	Lignumvitae Key	proposed conservation land	1	0%
		total	10,517	
43	Lower Matecumbe Key Tropical Hammocks	existing conservation land	104	11%
43	Lower Matecumbe Key Tropical Hammocks	open water	576	59%
43	Lower Matecumbe Key Tropical Hammocks	proposed conservation land	91	9%
43	Lower Matecumbe Key Tropical Hammocks	other private land	208	21%
		total	979	
44	Long Key Conservation Complex	existing conservation land	869	28%
44	Long Key Conservation Complex	open water	1,996	64%
44	Long Key Conservation Complex	proposed conservation land	97	3%
44	Long Key Conservation Complex	other private land	134	4%
		total	3,096	
45	Grassy Key Rock Barrens	open water	53	11%
45	Grassy Key Rock Barrens	proposed conservation land	92	19%
45	Grassy Key Rock Barrens	other private land	348	71%
		total	493	
46	Fat Deer Key Rock Barrens	existing conservation land	668	84%
46	Fat Deer Key Rock Barrens	open water	54	7%
46	Fat Deer Key Rock Barrens	other private land	75	9%
		total	797	
47	Vaca Key-Boot Key Conservation Complex	existing conservation land	55	2%
47	Vaca Key-Boot Key Conservation Complex	open water	1,054	41%
47	Vaca Key-Boot Key Conservation Complex	proposed conservation land	644	25%
47	Vaca Key-Boot Key Conservation Complex	other private land	828	32%
		total	2,581	
48	Great White Heron NWR East	existing conservation land	17,025	54%
48	Great White Heron NWR East	open water	14,745	46%
48	Great White Heron NWR East	other private land	51	0%
		total	31,821	
49	Bahia Honda State Park	existing conservation land	493	80%
49	Bahia Honda State Park	open water	70	11%
49	Bahia Honda State Park	other private land	55	9%
		total	618	
50	No Name Key-Key Deer NWR	existing conservation land	797	26%
50	No Name Key-Key Deer NWR	open water	1,862	62%
50	No Name Key-Key Deer NWR	proposed conservation land	273	9%
50	No Name Key-Key Deer NWR	other private land	91	3%
		total	3,023	
51	Big Pine Key-Key Deer NWR Conservation Complex	existing conservation land	47,184	66%
51	Big Pine Key-Key Deer NWR Conservation Complex	open water	18,269	26%
51	Big Pine Key-Key Deer NWR Conservation Complex	proposed conservation land	2,549	4%
51	Big Pine Key-Key Deer NWR Conservation Complex	other private land	3,083	4%
		total	71,085	

ID #	PORTFOLIO SITE NAME	DESCRIPTION	ACRES	PERCENT
52	Little Torch Key Tropical Hammocks	existing conservation land	355	99%
52	Little Torch Key Tropical Hammocks	open water	1	0%
52	Little Torch Key Tropical Hammocks	other private land	3	1%
		total	359	
53	Coupon Bight Aquatic Preserve	open water	3,081	100%
53	Coupon Bight Aquatic Preserve	proposed conservation land	3	0%
53	Coupon Bight Aquatic Preserve	other private land	11	0%
		total	3,095	
54	Newfound Harbor Keys Tropical Hammocks and Rock Barrens	open water	1,513	95%
54	Newfound Harbor Keys Tropical Hammocks and Rock Barrens	proposed conservation land	59	4%
54	Newfound Harbor Keys Tropical Hammocks and Rock Barrens	other private land	28	2%
		total	1,600	
55	Ramrod Key Tropical Hammocks	open water	179	25%
55	Ramrod Key Tropical Hammocks	proposed conservation land	519	72%
55	Ramrod Key Tropical Hammocks	other private land	25	3%
		total	723	
56	Lower Summerland Key Tropical Hammocks	existing conservation land	16	24%
56	Lower Summerland Key Tropical Hammocks	open water	5	8%
56	Lower Summerland Key Tropical Hammocks	proposed conservation land	3	5%
56	Lower Summerland Key Tropical Hammocks	other private land	42	64%
		total	66	
57	South Cudjoe Key Conservation Sites	existing conservation land	37	4%
57	South Cudjoe Key Conservation Sites	open water	686	80%
57	South Cudjoe Key Conservation Sites	proposed conservation land	12	1%
57	South Cudjoe Key Conservation Sites	other private land	121	14%
		total	856	
58	Great White Heron NWR West	existing conservation land	67,879	55%
58	Great White Heron NWR West	open water	54,918	45%
58	Great White Heron NWR West	other private land	500	0%
		total	123,297	
59	Sugerloaf Key Conservation Complex	existing conservation land	1,832	24%
59	Sugerloaf Key Conservation Complex	open water	3,212	42%
59	Sugerloaf Key Conservation Complex	proposed conservation land	1,657	22%
59	Sugerloaf Key Conservation Complex	other private land	886	12%
		total	7,587	
60	Saddlebunch Keys Conservation Complex	existing conservation land	1,641	84%
60	Saddlebunch Keys Conservation Complex	open water	83	4%
60	Saddlebunch Keys Conservation Complex	other private land	234	12%
		total	1,958	
61	Boca Chica Naval Air Station Site	existing conservation land	3,398	51%
61	Boca Chica Naval Air Station Site	open water	1,994	30%
61	Boca Chica Naval Air Station Site	other private land	1,306	19%
		total	6,698	
62	Key West Conservation Complex	existing conservation land	421	21%
62	Key West Conservation Complex	open water	406	21%
62	Key West Conservation Complex	other private land	1,146	58%
		total	1,973	
63	Key West NWR	existing conservation land	210,164	100%
63	Key West NWR	open water	73	0%
		total	210,237	
64	Roseate Tern Rookery Site	existing conservation land	16	2%
64	Roseate Tern Rookery Site	open water	752	98%
		total	768	
65	Dry Tortugas National Park	existing conservation land	64,410	100%
65	Dry Tortugas National Park	open water	29	0%
		total	64,439	

Appendix VIII: Targets Captured at Each Portfolio Site

TROPICAL FLORIDA ECOREGIONAL TARGETS CAPTURED AT EACH PORTFOLIO SITE			
Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
1	NYCTANASSA VIOLACEA	1	3
1	ROSTRHAMUS SOCIABILIS PLUMBEUS	1	
1	WADING BIRD ROOKERY	1	
1	Mottled Duck SHCA		
1	Snail Kite SHCA		
1	Snail Kite Critical Habitat		
1	Floodplain marsh		
2	NO TARGET SPECIES OCCURENCES		0
2	Landscape connectivity site (connected to Florida Peninsula portfolio site)		
3	NO TARGET SPECIES OCCURENCES		0
3	Mottled Duck SHCA		
3	Snail Kite SHCA		
3	Floodplain marsh		
4	WADING BIRD ROOKERY	1	1
5	NO TARGET SPECIES OCCURENCES		0
5	Part of Florida Peninsula portfolio site that extends into Tropical FL		
6	ACTINOSTACHYS PENNULA	3	33
6	EGRETTA THULA	3	
6	EGRETTA TRICOLOR	14	
6	EUDOCIMUS ALBUS	6	
6	MYCTERIA AMERICANA	2	
6	ROSTRHAMUS SOCIABILIS PLUMBEUS	1	
6	WADING BIRD ROOKERY	4	
6	Snail Kite SHCA		
6	Short-tailed Hawk habitat		
6	Snail Kite Critical Habitat		
6	Tropical swale		
7	GOPHERUS POLYPHEMUS	1	1
7	Swallow-tailed Kite SHCA		
7	Black Bear SHCA		
7	Panther SHCA		
7	Mesic flatwoods		
8	BEACH DUNE	2	14
8	CELTIS PALLIDA	1	
8	CHARADRIUS ALEXANDRINUS	1	
8	CROTALUS ADAMANTEUS	1	
8	DENDROICA DISCOLOR PALUDICOLA	1	
8	GOPHERUS POLYPHEMUS	1	
8	HALIAEETUS LEUCOCEPHALUS	3	
8	MARITIME HAMMOCK	1	
8	PELECANUS OCCIDENTALIS	1	
8	STERNA ANTILLARUM	1	
8	VIREO ALTILOQUUS	1	
8	Mesic flatwoods		
8	Subtropical seagrass beds		
8	Marine aquatic biodiversity site		
8	Piping Plover Proposed Critical Habitat		
9	CROTALUS ADAMANTEUS	1	14
9	CYRTOPODIUM PUNCTATUM	1	
9	ELANOIDES FORFICATUS	5	
9	EPIDENDRUM NOCTURNUM	1	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
9	MARL PRAIRIE	1	
9	MYCTERIA AMERICANA	1	
9	PICOIDES BOREALIS	1	
9	SLOUGH	1	
9	STRAND SWAMP	1	
9	WADING BIRD ROOKERY	1	
9	Swallow-tailed Kite SHCA		
9	Limpkin SHCA		
9	Short-tailed Hawk SHCA		
9	Short-tailed Hawk habitat		
9	Black Bear SHCA		
9	Panther SHCA		
9	Hatrack cypress		
9	Tropical hydric flatwoods		
9	Scrub		
10	DOME SWAMP	1	3
10	EGRETTA THULA	1	
10	EUDOCIMUS ALBUS	1	
10	Swallow-tailed Kite SHCA		
10	Short-tailed Hawk Habitat		
10	Panther SHCA		
10	Black Bear SHCA		
10	Mottled Duck SHCA		
10	Red-cockaded Woodpecker SHCA		
10	Swallow-tailed Kite Habitat		
10	Landscape connectivity site		
11	CARACARA PLANCUS	1	1
11	Swallow-tailed Kite SHCA		
11	Mottled Duck SHCA		
11	Short-tailed Hawk habitat		
11	Black Bear SHCA		
11	Panther SHCA		
11	Marl prairie		
11	Hatrack cypress		
11	Tropical bay swamp		
11	Tropical hydric flatwoods		
12	FELIS CONCOLOR CORYI	1	1
12	Short-tailed Hawk habitat		
12	Tropical swale		
13	FLOODPLAIN SWAMP	1	1
13	Scrubby flatwoods		
13	Scrub		
14	BAYGALL	1	34
14	CARETTA CARETTA	1	
14	CHAMAESYCE CUMULICOLA	1	
14	COASTAL STRAND	2	
14	CROTALUS ADAMANTEUS	1	
14	GOPHERUS POLYPHEMUS	2	
14	HALIAEETUS LEUCOCEPHALUS	1	
14	LECHEA CERNUA	6	
14	PICOIDES BOREALIS	1	
14	RYNCHOPS NIGER	1	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
14	SCRUB	9	
14	STERNA ANTILLARUM	1	
14	STYLISMA ABDITA	6	
14	URSUS AMERICANUS FLORIDANUS	1	
14	Black-whiskered Vireo SHCA		
14	Panther SHCA		
14	Mangrove		
14	Mesic flatwoods		
14	Scrubby flatwoods		
14	Scrub		
15	CARACARA PLANCUS	2	11
15	EGRETTA THULA	2	
15	EGRETTA TRICOLOR	3	
15	GLANDULARIA MARITIMA	1	
15	HALIAEETUS LEUCOCEPHALUS	1	
15	LANTANA DEPRESSA VAR SANIBELENSIS	1	
15	STRAND SWAMP	1	
15	Short-tailed Hawk habitat		
15	Black Bear SHCA		
15	Panther SHCA		
15	Snail Kite Critical Habitat		
15	Tropical swale		
16	ANAS FULVIGULA	2	54
16	ARAMUS GUARAUNA	3	
16	BUTEO BRACHYURUS	1	
16	EGRETTA THULA	8	
16	EGRETTA TRICOLOR	20	
16	EUDOCIMUS ALBUS	7	
16	LAMPROPELTIS GETULA FLORIDANA	2	
16	MYCTERIA AMERICANA	4	
16	NEHALLENIA PALLIDULA	1	
16	PLEGADIS FALCINELLUS	1	
16	ROSTRHAMUS SOCIABILIS PLUMBEUS	3	
16	WADING BIRD ROOKERY	2	
16	Snail Kite Critical Habitat		
16	Tropical swale		
17	ELYTRARIA CAROLINIENSIS VAR ANGUSTIFOLIA	1	1
18	NO TARGET SPECIES OCCURENCES		0
18	Mesic flatwoods		
19	AMMODRAMUS MARITIMUS MIRABILIS	1	55
19	BURMANNIA FLAVA	1	
19	BUTEO BRACHYURUS	3	
19	CORYNORHINUS RAFINESQUII	1	
19	DRYMARCHON CORAIS COUPERI	1	
19	EGRETTA THULA	1	
19	ELANOIDES FORFICATUS	5	
19	ELYTRARIA CAROLINIENSIS VAR ANGUSTIFOLIA	2	
19	ENCYCLIA COCHLEATA VAR TRIANDRA	1	
19	EUDOCIMUS ALBUS	2	
19	FELIS CONCOLOR CORYI	2	
19	GLANDULARIA MARITIMA	1	
19	GUZMANIA MONOSTACHIA	1	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
19	HALIAEETUS LEUCOCEPHALUS	3	
19	IONOPSIS UTRICULARIOIDES	2	
19	LAMPROPELTIS GETULA FLORIDANA	1	
19	MICROGRAMMA HETEROPHYLLA	2	
19	NEHALLENIA PALLIDULA	1	
19	PICOIDES BOREALIS	14	
19	ROSTRHAMUS SOCIABILIS PLUMBEUS	3	
19	TRICHOMANES HOLOPTERUM	1	
19	TRIPSACUM FLORIDANUM	1	
19	URSUS AMERICANUS FLORIDANUS	4	
19	WADING BIRD ROOKERY	1	
19	Swallow-tailed Kite SHCA		
19	Black-whiskered Vireo SHCA		
19	Mangrove Cuckoo SHCA		
19	Mottled Duck SHCA		
19	Short-tailed Hawk habitat		
19	Black Bear SHCA		
19	Panther SHCA		
19	Rare Plant SHCA		
19	Snail Kite Critical Habitat		
19	Marl prairie		
19	Tropical swale		
19	Hatrack cypress		
19	Tropical bay swamp		
19	Tropical strand swamp forest		
19	Tropical hardwood hammock		
19	Tropical hydric flatwoods		
20	ASPLENIUM SERRATUM	1	30
20	BASIN SWAMP	3	
20	CATOPSIS BERTERONIANA	1	
20	CROTALUS ADAMANTEUS	1	
20	CYRTOPODIUM PUNCTATUM	2	
20	DOME SWAMP	1	
20	EGRETTA THULA	1	
20	EPIDENDRUM NOCTURNUM	1	
20	GOPHERUS POLYPHEMUS	1	
20	IONOPSIS UTRICULARIOIDES	1	
20	MYCTERIA AMERICANA	2	
20	PICOIDES BOREALIS	2	
20	POLYRRHIZA LINDENII	3	
20	PRAIRIE HAMMOCK	3	
20	SLOUGH	3	
20	STRAND SWAMP	1	
20	WET FLATWOODS	3	
20	Swallow-tailed Kite SHCA		
20	Mottled Duck SHCA		
20	Red-cockaded Woodpecker SHCA		
20	Short-tailed Hawk SHCA		
20	Short-tailed Hawk habitat		
20	Black Bear SHCA		
20	Panther SHCA		
20	Rare Plant SHCA		
20	Hatrack cypress		

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
20	Tropical hydric flatwoods		
20	Scrubby flatwoods		
20	Scrub		
21	NO TARGET SPECIES OCCURENCES		0
21	Scrubby flatwoods		
22	ACROSTICHUM AUREUM	9	141
22	AJAIA AJAJA	1	
22	ASPLENIUM SERRATUM	1	
22	BEACH DUNE	3	
22	BUTEO BRACHYURUS	1	
22	CARETTA CARETTA	1	
22	CHAMAESYCE CUMULICOLA	3	
22	CHARADRIUS MELODUS	2	
22	CHEILANTHES MICROPHYLLA	1	
22	CHEIROGLOSSA PALMATA	1	
22	COASTAL ROCK BARREN	1	
22	COASTAL STRAND	4	
22	COCCYZUS MINOR	2	
22	COLUMBA LEUCOCEPHALA	1	
22	CROTALUS ADAMANTEUS	1	
22	CYRTOPODIUM PUNCTATUM	1	
22	DENDROICA DISCOLOR PALUDICOLA	1	
22	DRYMARCHON CORAIS COUPERI	2	
22	EUDOCIMUS ALBUS	1	
22	FALCO PEREGRINUS	1	
22	GOPHERUS POLYPHEMUS	10	
22	GOSSYPIUM HIRSUTUM	4	
22	HALIAEETUS LEUCOCEPHALUS	6	
22	LECHEA CERNUA	3	
22	MARITIME HAMMOCK	28	
22	MARL PRAIRIE	1	
22	NYCTANASSA VIOLACEA	1	
22	PANDION HALIAETUS	2	
22	PELECANUS OCCIDENTALIS	3	
22	PERSEA HUMILIS	1	
22	PINE ROCKLAND	1	
22	POLYRRHIZA LINDENII	2	
22	PTEROGLOSSASPIS ECRISTATA	1	
22	RIVULUS MARMORATUS	2	
22	ROYSTONEA ELATA	1	
22	RYNCHOPS NIGER	5	
22	SCRUB	6	
22	SHOREBIRD AGGREGATION	5	
22	STERNA ANTILLARUM	6	
22	STERNA DOUGALLII	4	
22	STRAND SWAMP	1	
22	TILLANDSIA PRUINOSA	5	
22	URSUS AMERICANUS FLORIDANUS	2	
22	VIREO ALTILOQUUS	1	
22	WET FLATWOODS	2	
22	Swallow-tailed Kite SHCA		
22	Black-whiskered Vireo SHCA		
22	Mangrove Cuckoo SHCA		

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
22	Snowy Plover SHCA		
22	Short-tailed Hawk SHCA		
22	Black Bear SHCA		
22	Panther SHCA		
22	Rare Plant SHCA		
22	Piping Plover Proposed Critical Habitat		
22	Scrubby flatwoods		
22	Scrub		
22	Subtropical seagrass beds		
23	PANDION HALIAETUS	1	1
23	Black-whiskered Vireo SHCA		
23	Mangrove Cuckoo SHCA		
23	Snowy Plover SHCA		
23	Piping Plover Proposed Critical Habitat		
23	Panther SHCA		
23	Rare Plant SHCA		
23	Subtropical seagrass beds		
23	Marine aquatic biodiversity site		
24	CHARADRIUS ALEXANDRINUS	1	4
24	CHARADRIUS MELODUS	1	
24	RYNCHOPS NIGER	1	
24	STERNA ANTILLARUM	1	
24	Snowy Plover SHCA		
24	Short-tailed Hawk SHCA		
24	Piping Plover Proposed Critical Habitat		
25	ASPLENIUM AURITUM	2	48
25	ASPLENIUM SERRATUM	4	
25	BUTEO BRACHYURUS	1	
25	CAMPYLOCENTRUM PACHYRRHIZUM	2	
25	CAMPYLONEURUM ANGUSTIFOLIUM	1	
25	CAMPYLONEURUM COSTATUM	2	
25	CATOPSIS NUTANS	1	
25	CHEIROGLOSSA PALMATA	3	
25	CROTALUS ADAMANTEUS	1	
25	CTENITIS SLOANEI	2	
25	EGRETTA THULA	1	
25	EGRETTA TRICOLOR	1	
25	ELANOIDES FORFICATUS	3	
25	ENCYCLIA COCHLEATA VAR TRIANDRA	2	
25	ENCYCLIA PYGMAEA	1	
25	EPIDENDRUM STROBILIFERUM	2	
25	FELIS CONCOLOR CORYI	1	
25	GUZMANIA MONOSTACHIA	3	
25	HALIAEETUS LEUCOCEPHALUS	1	
25	HUPERZIA DICHOTOMA	1	
25	LINUM CARTERI VAR SMALLII	1	
25	MAXILLARIA CRASSIFOLIA	1	
25	ONCIDIUM UNDULATUM	1	
25	PANDION HALIAETUS	1	
25	PEPEROMIA OBTUSIFOLIA	1	
25	PLEUROTHALLIS GELIDA	2	
25	POLYRRHIZA LINDENII	1	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
25	ROYSTONEA ELATA	2	
25	STRAND SWAMP	1	
25	TRICHECHUS MANATUS	1	
25	VANILLA PHAEANTHA	1	
25	Swallow-tailed Kite SHCA		
25	Black-whiskered Vireo SHCA		
25	Mangrove Cuckoo SHCA		
25	Short-tailed Hawk SHCA		
25	Black Bear SHCA		
25	Panther SHCA		
25	Rare Plant SHCA		
25	Tropical bay swamp		
25	Tropical strand swamp forest		
26	CONRADINA GRANDIFLORA	1	3
26	JACQUEMONTIA RECLINATA	1	
26	SWIETENIA MAHAGONI	1	
27	BEACH DUNE	1	5
27	COASTAL STRAND	1	
27	LANTANA DEPRESSA VAR FLORIDANA	1	
27	MARITIME HAMMOCK	1	
27	OKENIA HYPOGAEA	1	
27	Mangrove		
28	EUPHORBIA PINETORUM	1	8
28	FORESTIERA SEGREGATA VAR PINETORUM	1	
28	GLANDULARIA MARITIMA	1	
28	LANTANA DEPRESSA VAR DEPRESSA	1	
28	LANTANA DEPRESSA VAR FLORIDANA	1	
28	OKENIA HYPOGAEA	1	
28	ROCKLAND HAMMOCK	2	
28	Mangrove		
29	PINE ROCKLAND	1	1
30	ADIANTUM MELANOLEUCUM	1	386
30	ADIANTUM TENERUM	2	
30	AJAIA AJAJA	24	
30	AMMODRAMUS MARITIMUS MIRABILIS	4	
30	ANEMIA WRIGHTII	8	
30	ARDEA HERODIAS OCCIDENTALIS	39	
30	ASPLENIUM TRICHOMANES-DENTATUM	1	
30	BASIPHYLLAEA CORALLICOLA	1	
30	BEACH DUNE	3	
30	BUTEO BRACHYURUS	15	
30	CALYPTRANTHES ZUZYGIUM	2	
30	CAMPYLONEURUM ANGUSTIFOLIUM	1	
30	CANELLA WINTERIANA	1	
30	CATOPSIS BERTERONIANA	1	
30	CHAMAESYCE GARBERI	3	
30	CHAMAESYCE PINETORUM	3	
30	CHARADRIUS ALEXANDRINUS	1	
30	CHARADRIUS MELODUS	1	
30	CHEILANTHES MICROPHYLLA	1	
30	COCCYZUS MINOR	2	
30	COLUBRINA CUBENSIS VAR FLORIDANA	2	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
30	COLUMBA LEUCOCEPHALA	45	
30	CROCODYLUS ACUTUS	1	
30	CROTALUS ADAMANTEUS	1	
30	DIGITARIA PAUCIFLORA	4	
30	DRYMARCHON CORAIS COUPERI	3	
30	EGRETTA RUFESCENS	5	
30	EGRETTA THULA	11	
30	EGRETTA TRICOLOR	20	
30	ELYTRARIA CAROLINIENSIS VAR ANGUSTIFOLIA	1	
30	ENCYCLIA COCHLEATA VAR TRIANDRA	1	
30	EPIDENDRUM NOCTURNUM	4	
30	ESTUARINE TIDAL MARSH	1	
30	EUDOCIMUS ALBUS	10	
30	FALCO PEREGRINUS	1	
30	FELIS CONCOLOR CORYI	1	
30	FORESTIERA SEGREGATA VAR PINETORUM	4	
30	GALEANDRA BEYRICHII	1	
30	GLANDULARIA MARITIMA	1	
30	GOPHERUS POLYPHEMUS	1	
30	GOSSYPIUM HIRSUTUM	3	
30	HALIAEETUS LEUCOCEPHALUS	46	
30	HARRISIA SIMPSONII	2	
30	HIPPOMANE MANCINELLA	2	
30	HYPELATE TRIFOLIATA	1	
30	ILEX KRUGIANA	3	
30	JACQUEMONTIA CURTISSII	2	
30	JACQUINIA KEYENSIS	12	
30	LAMPROPELTIS GETULA FLORIDANA	1	
30	LINUM CARTERI VAR SMALLII	2	
30	LOMARIOPSIS KUNZEANA	1	
30	MALACLEMYS TERRAPIN RHIZOPHORARUM	4	
30	MARINE TIDAL MARSH	1	
30	MARITIME HAMMOCK	2	
30	MARL PRAIRIE	1	
30	MYCTERIA AMERICANA	7	
30	NEHALLENIA PALLIDULA	3	
30	ONCIDIUM FLORIDANUM	1	
30	PELECANUS OCCIDENTALIS	5	
30	POLYRRHIZA LINDENII	1	
30	PRESCOTIA OLIGANTHA	1	
30	RIVULUS MARMORATUS	1	
30	ROCKLAND HAMMOCK	1	
30	ROYSTONEA ELATA	4	
30	RYNCHOPS NIGER	2	
30	SELAGINELLA EATONII	3	
30	SHOREBIRD AGGREGATION	17	
30	SPHENOMERIS CLAVATA	1	
30	STERNA ANTILLARUM	5	
30	STERNA DOUGALLII	2	
30	SWIETENIA MAHAGONI	1	
30	TECTARIA FIMBRIATA	1	
30	THELYPTERIS REPTANS	1	
30	THRINAX RADIATA	9	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
30	TRIPSACUM FLORIDANUM	1	
30	VERNONIA BLODGETTII	1	
30	VIREO ALTILOQUUS	1	
30	WADING BIRD ROOKERY	2	
30	Short-tailed Hawk SHCA		
30	Black-whiskered Vireo SHCA		
30	Mangrove Cuckoo SHCA		
30	Snail Kite SHCA		
30	Short-tailed Hawk Habitat		
30	Crocodile Habitat		
30	Crocodile Critical Habitat		
30	Piping Plover Proposed Critical Habitat		
30	Snail Kite Critical Habitat		
30	Cape Sable Seaside Sparrow Critical Habitat		
30	Rare Plant SHCA		
30	Marl prairie		
30	Tropical swale		
30	Hatrack cypress		
30	Tropical bay swamp		
30	Pine rockland		
30	Tropical hardwood hammock		
30	Coastal berm		
30	Tidal marsh		
30	Hypersaline coastal flat		
30	Sinkhole		
30	Subtropical seagrass beds		
30	Marine aquatic biodiversity site		
31	ARDEA HERODIAS OCCIDENTALIS	1	15
31	CHARADRIUS MELODUS	1	
31	EGRETTA RUFESCENS	1	
31	EGRETTA THULA	1	
31	EGRETTA TRICOLOR	1	
31	EUDOCIMUS ALBUS	1	
31	FALCO PEREGRINUS	1	
31	GOPHERUS POLYPHEMUS	1	
31	NYCTANASSA VIOLACEA	1	
31	OKENIA HYPOGAEA	1	
31	PANDION HALIAETUS	1	
31	PELECANUS OCCIDENTALIS	1	
31	RYNCHOPS NIGER	1	
31	STERNA ANTILLARUM	1	
31	ZANTHOXYLUM CORIACEUM	1	
32	CARETTA CARETTA	1	7
32	COASTAL STRAND	1	
32	CYRTOPODIUM PUNCTATUM	1	
32	JACQUEMONTIA RECLINATA	1	
32	OKENIA HYPOGAEA	2	
32	ZANTHOXYLUM CORIACEUM	1	
32	Mangrove Cuckoo SHCA		
33	BEACH DUNE	1	4
33	COCCYZUS MINOR	1	
33	FALCO PEREGRINUS	1	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
33	LANTANA DEPRESSA VAR FLORIDANA	1	
33	Black-whiskered Vireo SHCA		
33	Mangrove Cuckoo SHCA		
34	ADIANTUM MELANOLEUCUM	3	483
34	ADIANTUM TENERUM	10	
34	ALVARADOA AMORPHOIDES	5	
34	AMORPHA HERBACEA VAR CRENULATA	2	
34	ANEMIA WRIGHTII	1	
34	ARGYTHAMNIA BLODGETTII	6	
34	ASPLENIUM SERRATUM	1	
34	ASPLENIUM TRICHOMANES-DENTATUM	4	
34	ASPLENIUM X BISCAYNIANUM	3	
34	BASIPHYLLAEA CORALLICOLA	2	
34	BOURRERIA CASSINIFOLIA	6	
34	BRICKELLIA EUPATORIOIDES VAR. FLORIDANA	3	
34	BRICKELLIA MOSIERI	2	
34	CATOPSIS BERTERONIANA	5	
34	CATOPSIS FLORIBUNDA	3	
34	CHAMAESYCE DELTOIDEA SSP ADHAERENS	9	
34	CHAMAESYCE DELTOIDEA SSP DELTOIDEA	12	
34	CHAMAESYCE GARBERI	1	
34	CHAMAESYCE PINETORUM	3	
34	CHAMAESYCE PORTERIANA VAR PORTERIANA	13	
34	CHEIROGLOSSA PALMATA	1	
34	COLUBRINA CUBENSIS VAR FLORIDANA	4	
34	CROSSOPETALUM ILICIFOLIUM	13	
34	CTENITIS SLOANEI	5	
34	CYRTOPODIUM PUNCTATUM	1	
34	DIGITARIA PAUCIFLORA	2	
34	ELTROPLECTRIS CALCARATA	2	
34	ELYTRARIA CAROLINIENSIS VAR ANGUSTIFOLIA	2	
34	ENCYCLIA BOOTHIANA VAR ERYTHRONIOIDES	2	
34	ENCYCLIA COCHLEATA VAR TRIANDRA	2	
34	EPIDENDRUM NOCTURNUM	4	
34	EUGENIA CONFUSA	2	
34	EUPATORIUM VILLOSUM	9	
34	EUPHORBIA PINETORUM	12	
34	FORESTIERA SEGREGATA VAR PINETORUM	6	
34	GALACTIA PINETORUM	15	
34	GALACTIA SMALLII	6	
34	GALEANDRA BEYRICHII	2	
34	GLANDULARIA MARITIMA	1	
34	GUZMANIA MONOSTACHIA	2	
34	ILEX KRUGIANA	11	
34	IPOMOEA MICRODACTYLA	12	
34	IPOMOEA TENUISSIMA	12	
34	JACQUEMONTIA CURTISSII	21	
34	LANTANA CANESCENS	3	
34	LANTANA DEPRESSA VAR DEPRESSA	14	
34	LANTANA DEPRESSA VAR FLORIDANA	5	
34	LEIPHAIMOS PARASITICA	3	
34	LINUM ARENICOLA	2	
34	LINUM CARTERI VAR CARTERI	6	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
34	LINUM CARTERI VAR SMALLII	2	
34	LOMARIOPSIS KUNZEANA	2	
34	OKENIA HYPOGAEA	1	
34	PEPEROMIA OBTUSIFOLIA	5	
34	PHYLLANTHUS PENTAPHYLLUS SSP FLORIDANUS	25	
34	PICRAMNIA PENTANDRA	1	
34	PINE ROCKLAND	32	
34	POINSETTIA PINETORUM	5	
34	POLYGALA BOYKINII VAR SPARSIFOLIA	2	
34	POLYGALA SMALLII	7	
34	PRUNUS MYRTIFOLIA	6	
34	PTEROGLOSSASPIS ECRISTATA	4	
34	ROCKLAND HAMMOCK	10	
34	ROYSTONEA ELATA	2	
34	SACHSIA POLYCEPHALA	14	
34	SCUTELLARIA HAVENENSIS	2	
34	SELAGINELLA EATONII	1	
34	SPHENOMERIS CLAVATA	5	
34	SPIRANTHES COSTARICENSIS	2	
34	SPIRANTHES TORTA	2	
34	STYLOSANTHES CALCICOLA	1	
34	SWIETENIA MAHAGONI	1	
34	TECTARIA FIMBRIATA	12	
34	TEPHROSIA ANGUSTISSIMA VAR CORALLICOLA	1	
34	THELYPTERIS REPTANS	6	
34	THELYPTERIS SCLEROPHYLLA	3	
34	TRAGIA SAXICOLA	19	
34	TRICHOMANES KRAUSII	5	
34	TRICHOMANES PUNCTATUM SSP FLORIDANUM	7	
34	TRIPSACUM FLORIDANUM	15	
34	VANILLA BARBELLATA	1	
34	VANILLA PHAEANTHA	1	
34	VERNONIA BLODGETTII	3	
34	ZEPHYRANTHES SIMPSONII	1	
34	ZORNIA BRACTEATA	1	
34	Black-whiskered Vireo SHCA		
34	Mangrove Cuckoo SHCA		
34	Pine Rockland SHCA		
34	Pine rockland		
35	ARISTOLOCHIA PENTANDRA	1	25
35	BEACH DUNE	2	
35	BOURRERIA CASSINIFOLIA	1	
35	COCCYZUS MINOR	1	
35	ERETMOCHELYS IMBRICATA	1	
35	FALCO PEREGRINUS	2	
35	GUAIACUM SANCTUM	3	
35	HERACLIDES ARTISTODEMUS PONCEANUS	4	
35	HIPPOMANE MANCINELLA	1	
35	LANTANA DEPRESSA VAR FLORIDANA	1	
35	LINUM ARENICOLA	1	
35	PASSIFLORA MULTIFLORA	1	
35	PELECANUS OCCIDENTALIS	3	
35	PSEUDOPHOENIX SARGENTII	2	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
35	SELAGINELLA EATONII	1	
35	Black-whiskered Vireo SHCA		
35	Mangrove Cuckoo SHCA		
35	Crocodile Habitat		
35	Crocodile Critical Habitat		
35	Pine Rockland SHCA		
35	Subtropical seagrass beds		
35	Marine aquatic biodiversity site		
36	CROCODYLUS ACUTUS	1	11
36	CROTALUS ADAMANTEUS	1	
36	EUPATORIUM VILLOSUM	1	
36	HALIAEETUS LEUCOCEPHALUS	2	
36	ILEX KRUGIANA	2	
36	LAMPROPELTIS GETULA FLORIDANA	3	
36	PRUNUS MYRTIFOLIA	1	
36	Black-whiskered Vireo SHCA		
36	Mangrove Cuckoo SHCA		
36	Snail Kite SHCA		
36	Crocodile Habitat		
36	Crocodile Critical Habitat		
36	Pine Rockland SHCA		
36	Cape Sable Seaside Sparrow Critical Habitat		
36	Marl prairie		
36	Tropical swale		
36	Tidal marsh		
37	NO TARGET SPECIES OCCURENCES		0
37	Black-whiskered Vireo SHCA		
37	Mangrove Cuckoo SHCA		
37	Crocodile Critical Habitat		
37	Crocodile Habitat		
37	Subtropical seagrass beds		
37	Marine aquatic biodiversity site		
38	ACROSTICHUM AUREUM	3	131
38	AJAIA AJAJA	1	
38	BOURRERIA CASSINIFOLIA	1	
38	CALYPTRANTHES ZUZYGIUM	1	
38	CANELLA WINTERIANA	6	
38	CATOPSIS BERTERONIANA	1	
38	COCCYZUS MINOR	1	
38	COLUMBA LEUCOCEPHALA	2	
38	CROCODYLUS ACUTUS	1	
38	CROSSOPETALUM ILICIFOLIUM	1	
38	DRYMARCHON CORAIS COUPERI	1	
38	ENCYCLIA BOOTHIANA VAR ERYTHRONIOIDES	3	
38	EUGENIA CONFUSA	3	
38	EUGENIA RHOMBEA	3	
38	EUMECES EGREGIUS EGREGIUS	1	
38	GAMBUSIA RHIZOPHORAE	1	
38	GOBIONELLUS STIGMATURUS	1	
38	GOSSYPIUM HIRSUTUM	1	
38	GUAIACUM SANCTUM	3	
38	HARRISIA SIMPSONII	9	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
38	HERACLIDES ARTISTODEMUS PONCEANUS	2	
38	HIPPOMANE MANCINELLA	1	
38	HYPELATE TRIFOLIATA	6	
38	INDIGOFERA MUCRONATA VAR KEYENSIS	1	
38	JACQUEMONTIA HAVANENSIS	1	
38	JACQUINIA KEYENSIS	3	
38	MALACLEMYS TERRAPIN RHIZOPHORARUM	1	
38	MARINE GRASS BED	1	
38	MARINE TIDAL MARSH	2	
38	MICROGRAMMA HETEROPHYLLA	1	
38	NEHALLENIA PALLIDULA	1	
38	NEOTOMA FLORIDANA SMALLI	14	
38	PASSIFLORA MULTIFLORA	3	
38	PEROMYSCUS GOSSYPINUS ALLAPATICOLA	13	
38	PHORADENDRON RUBRUM	2	
38	RALLUS LONGIROSTRIS INSULARUM	1	
38	ROCKLAND HAMMOCK	21	
38	SCHAEFFERIA FRUTESCENS	1	
38	STERNA ANTILLARUM	1	
38	SWIETENIA MAHAGONI	5	
38	TANTILLA OOLITICA	1	
38	THRINAX RADIATA	3	
38	VALLESIA ANTILLANA	1	
38	VANILLA BARBELLATA	1	
38	Black-whiskered Vireo SHCA		
38	Mangrove Cuckoo SHCA		
38	White-crowned Pigeon SHCA		
38	Crocodile Habitat		
38	Crocodile Critical Habitat		
38	Tropical Hardwood Hammock SHCA		
38	Coral reef		
38	Marine aquatic biodiversity site		
39	ARGYTHAMNIA BLODGETTII	1	10
39	CANELLA WINTERIANA	1	
39	GUAIACUM SANCTUM	1	
39	HIPPOMANE MANCINELLA	1	
39	PASSIFLORA MULTIFLORA	1	
39	PILOSOCEREUS ROBINII	1	
39	ROCKLAND HAMMOCK	2	
39	SCHAEFFERIA FRUTESCENS	1	
39	SWIETENIA MAHAGONI	1	
39	Black-whiskered Vireo SHCA		
39	Mangrove Cuckoo SHCA		
39	White-crowned Pigeon SHCA		
39	Crocodile Critical Habitat		
40	COASTAL ROCK BARREN	1	4
40	HYPELATE TRIFOLIATA	1	
40	ROCKLAND HAMMOCK	2	
40	Black-whiskered Vireo SHCA		
40	Mangrove Cuckoo SHCA		
40	Crocodile Critical Habitat		
41	CALYPTRANTHES ZUZYGIUM	1	23

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
41	EUGENIA RHOMBEA	2	
41	EUNICA TATILA TATILISTA	2	
41	EXOSTEMA CARIBAEUM	2	
41	GOSSYPIUM HIRSUTUM	1	
41	GUAIACUM SANCTUM	2	
41	HARRISIA SIMPSONII	2	
41	HYPELATE TRIFOLIATA	1	
41	INDIGOFERA MUCRONATA VAR KEYENSIS	1	
41	JACQUINIA KEYENSIS	1	
41	LIGUUS FASCIATUS MATECUMBENSIS	1	
41	PILOSOCEREUS ROBINII	1	
41	RIVULUS MARMORATUS	1	
41	ROCKLAND HAMMOCK	2	
41	SCHAEFFERIA FRUTESCENS	3	
41	Black-whiskered Vireo SHCA		
41	Mangrove Cuckoo SHCA		
41	Crocodile Critical Habitat		
42	ARGYTHAMNIA BLODGETTII	1	11
42	COLUMBA LEUCOCEPHALA	1	
42	DENDROICA DISCOLOR PALUDICOLA	1	
42	DRYMARCHON CORAIS COUPERI	1	
42	GAMBUSIA RHIZOPHORAE	1	
42	GUAIACUM SANCTUM	1	
42	HYPELATE TRIFOLIATA	1	
42	LIGUUS FASCIATUS MATECUMBENSIS	1	
42	NEOTOMA FLORIDANA SMALLI	1	
42	ROCKLAND HAMMOCK	1	
42	VIREO ALTILOQUUS	1	
42	Black-whiskered Vireo SHCA		
42	Mangrove Cuckoo SHCA		
42	White-crowned Pigeon SHCA		
42	Crocodile Habitat		
42	Crocodile Critical Habitat		
43	CHARADRIUS MELODUS	1	9
43	EUNICA TATILA TATILISTA	1	
43	GUAIACUM SANCTUM	1	
43	GYMINDA LATIFOLIA	1	
43	LIGUUS FASCIATUS MATECUMBENSIS	1	
43	PILOSOCEREUS ROBINII	1	
43	RIVULUS MARMORATUS	1	
43	ROCKLAND HAMMOCK	1	
43	SCHAEFFERIA FRUTESCENS	1	
43	Black-whiskered Vireo SHCA		
43	Mangrove Cuckoo SHCA		
43	White-crowned Pigeon SHCA		
43	Crocodile Habitat		
43	Crocodile Critical Habitat		
43	Tropical Hardwood Hammock SHCA		
44	AJAIA AJAJA	1	52
44	ARDEA HERODIAS OCCIDENTALIS	1	
44	BEACH DUNE	1	
44	CHAMAESYCE GARBERI	3	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
44	CIENFUEGOSIA YUCATANENSIS	2	
44	COASTAL ROCK BARREN	3	
44	COLUBRINA CUBENSIS VAR FLORIDANA	1	
44	COLUMBA LEUCOCEPHALA	2	
44	DENDROICA DISCOLOR PALUDICOLA	2	
44	EGRETTA RUFESCENS	1	
44	EGRETTA THULA	1	
44	EGRETTA TRICOLOR	2	
44	EUDOCIMUS ALBUS	1	
44	GAMBUSIA RHIZOPHORAE	1	
44	GOBIONELLUS STIGMATURUS	1	
44	GOSSYPIUM HIRSUTUM	1	
44	GUAIACUM SANCTUM	1	
44	INDIGOFERA MUCRONATA VAR KEYENSIS	2	
44	JACQUEMONTIA PENTANTHOS	2	
44	JACQUINIA KEYENSIS	5	
44	OPUNTIA TRIACANTHA	4	
44	PELECANUS OCCIDENTALIS	1	
44	PILOSOCEREUS ROBINII	3	
44	PISONIA FLORIDANA	1	
44	PLEGADIS FALCINELLUS	1	
44	ROCKLAND HAMMOCK	1	
44	STERNA ANTILLARUM	2	
44	SWIETENIA MAHAGONI	1	
44	THRINAX RADIATA	2	
44	TRICHECHUS MANATUS	1	
44	VIREO ALTILOQUUS	1	
44	Black-whiskered Vireo SHCA		
44	White-crowned Pigeon SHCA		
44	Crocodile Habitat		
44	Crocodile Critical Habitat		
45	ARGYTHAMNIA BLODGETTII	1	7
45	CARETTA CARETTA	1	
45	COASTAL ROCK BARREN	1	
45	GYMINDA LATIFOLIA	1	
45	INDIGOFERA MUCRONATA VAR KEYENSIS	1	
45	STRUMPFIA MARITIMA	1	
45	THRINAX RADIATA	1	
45	Black-whiskered Vireo SHCA		
45	White-crowned Pigeon SHCA		
46	ARGYTHAMNIA BLODGETTII	1	8
46	CHAMAESYCE GARBERI	1	
46	CHAMAESYCE PORTERIANA VAR PORTERIANA	1	
46	CYPERUS FULIGINEUS	1	
46	INDIGOFERA MUCRONATA VAR KEYENSIS	1	
46	JACQUEMONTIA CURTISSII	1	
46	OPUNTIA TRIACANTHA	1	
46	ROCKLAND HAMMOCK	1	
46	Black-whiskered Vireo SHCA		
46	Tropical Hardwood Hammock SHCA		
47	ARGYTHAMNIA BLODGETTII	1	12
47	BUTEO BRACHYURUS	1	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
47	FALCO PEREGRINUS	1	
47	GYMINDA LATIFOLIA	3	
47	JACQUINIA KEYENSIS	1	
47	THRINAX RADIATA	2	
47	VALLESIA ANTILLANA	2	
47	WADING BIRD ROOKERY	1	
47	Black-whiskered Vireo SHCA		
47	White-crowned Pigeon SHCA		
47	Crocodile Habitat		
47	Tropical Hardwood Hammock SHCA		
48	PANDION HALIAETUS	1	3
48	PELECANUS OCCIDENTALIS	1	
48	WADING BIRD ROOKERY	1	
48	Black-whiskered Vireo SHCA		
48	Mangrove Cuckoo SHCA		
48	Subtropical seagrass beds		
48	Marine aquatic biodiversity site		
49	CARETTA CARETTA	1	13
49	CATESBAEA PARVIFLORA	2	
49	CHARADRIUS MELODUS	2	
49	COLUMBA LEUCOCEPHALA	1	
49	EUMECES EGREGIUS EGREGIUS	1	
49	HIPPOMANE MANCINELLA	1	
49	JACQUEMONTIA HAVANENSIS	1	
49	RALLUS LONGIROSTRIS INSULARUM	1	
49	RYNCHOPS NIGER	1	
49	THRINAX RADIATA	2	
49	Piping Plover Proposed Critical Habitat		
50	ARDEA HERODIAS OCCIDENTALIS	1	21
50	CHAMAESYCE PORTERIANA VAR PORTERIANA	1	
50	COCCYZUS MINOR	1	
50	CROSSOPETALUM ILICIFOLIUM	1	
50	DIADOPHIS PUNCTATUS ACRICUS	1	
50	GYMINDA LATIFOLIA	1	
50	MARITIME HAMMOCK	1	
50	NYCTANASSA VIOLACEA	1	
50	ODOCOILEUS VIRGINIANUS CLAVIUM	1	
50	PELECANUS OCCIDENTALIS	1	
50	PINE ROCKLAND	1	
50	RIVULUS MARMORATUS	3	
50	ROCKLAND HAMMOCK	5	
50	SACHSIA POLYCEPHALA	1	
50	SAVIA BAHAMENSIS	1	
50	Black-whiskered Vireo SHCA		
50	Mangrove Cuckoo SHCA		
50	White-crowned Pigeon SHCA		
50	Tropical Hardwood Hammock SHCA		
50	Pine Rockland SHCA		
51	ARDEA HERODIAS OCCIDENTALIS	9	181
51	ARGYTHAMNIA BLODGETTII	4	
51	BASIPHYLLAEA CORALLICOLA	1	
51	BOURRERIA CASSINIFOLIA	1	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
51	BUTEO BRACHYURUS	1	
51	CATESBAEA PARVIFLORA	1	
51	CHAMAECRISTA LINEATA VAR KEYENSIS	10	
51	CHAMAESYCE DELTOIDEA SSP SERPYLLUM	7	
51	CHAMAESYCE GARBERI	2	
51	CHAMAESYCE PORTERIANA VAR PORTERIANA	2	
51	COASTAL ROCK BARREN	1	
51	COCCYZUS MINOR	1	
51	COLUMBA LEUCOCEPHALA	6	
51	CROSSOPETALUM ILICIFOLIUM	1	
51	CUPANIA GLABRA	1	
51	DIADOPHIS PUNCTATUS ACRICUS	3	
51	DRYMARCHON CORAIS COUPERI	3	
51	EGRETTA RUFESCENS	1	
51	ERETMOCHELYS IMBRICATA	1	
51	EUMECES EGREGIUS EGREGIUS	1	
51	EUPHORBIA PINETORUM	1	
51	FALCO PEREGRINUS	1	
51	FORESTIERA SEGREGATA VAR PINETORUM	1	
51	GYMINDA LATIFOLIA	1	
51	HALIAEETUS LEUCOCEPHALUS	1	
51	HARRISIA SIMPSONII	2	
51	HIPPOMANE MANCINELLA	3	
51	JACQUINIA KEYENSIS	9	
51	LINUM ARENICOLA	10	
51	ODOCOILEUS VIRGINIANUS CLAVIUM	6	
51	OPUNTIA TRIACANTHA	1	
51	ORYZOMYS PALUSTRIS POP 3	5	
51	PANDION HALIAETUS	3	
51	PELECANUS OCCIDENTALIS	3	
51	PHYLLANTHUS PENTAPHYLLUS SSP FLORIDANUS	1	
51	PILOSOCEREUS ROBINII	2	
51	PINE ROCKLAND	3	
51	POLYGALA BOYKINII VAR SPARSIFOLIA	13	
51	ROCKLAND HAMMOCK	28	
51	SACHSIA POLYCEPHALA	4	
51	SAVIA BAHAMENSIS	1	
51	SIGMODON HISPIDUS EXSPUTUS	1	
51	STERNA ANTILLARUM	4	
51	STORERIA DEKAYI POP 1	1	
51	STRUMPFIA MARITIMA	2	
51	STYLOSANTHES CALCICOLA	1	
51	SYLVILAGUS PALUSTRIS HEFNERI	4	
51	THAMNOPHIS SAURITUS POP 1	1	
51	THRINAX RADIATA	1	
51	TRAGIA SAXICOLA	3	
51	TRIPSACUM FLORIDANUM	1	
51	VALLESIA ANTILLANA	1	
51	VANILLA BARBELLATA	4	
51	WADING BIRD ROOKERY	1	
51	Black-whiskered Vireo SHCA		
51	Mangrove Cuckoo SHCA		
51	Silver Rice Rat Critical Habitat		

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
51	Tropical Hardwood Hammock SHCA		
51	Pine Rockland SHCA		
51	Rare Plant SHCA		
51	Subtropical seagrass beds		
51	Marine aquatic biodiversity site		
52	OPUNTIA SPINOSISSIMA	1	2
52	SAVIA BAHAMENSIS	1	
52	Tropical Hardwood Hammock SHCA		
53	NO TARGET SPECIES OCCURENCES		0
53	Black-whiskered Vireo SHCA		
53	Mangrove Cuckoo SHCA		
53	Rare Plant SHCA		
53	Subtropical seagrass beds		
53	Marine aquatic biodiversity site		
54	COASTAL ROCK BARREN	1	11
54	COLUMBA LEUCOCEPHALA	1	
54	EGRETTA RUFESCENS	1	
54	GUAIACUM SANCTUM	1	
54	JACQUINIA KEYENSIS	1	
54	ODOCOILEUS VIRGINIANUS CLAVIUM	1	
54	OPUNTIA TRIACANTHA	1	
54	ROCKLAND HAMMOCK	1	
54	SYLVILAGUS PALUSTRIS HEFNERI	1	
54	WADING BIRD ROOKERY	2	
54	Black-whiskered Vireo SHCA		
54	Mangrove Cuckoo SHCA		
54	Rare Plant SHCA		
55	CHAMAESYCE GARBERI	1	2
55	ROCKLAND HAMMOCK	1	
55	Black-whiskered Vireo SHCA		
55	Mangrove Cuckoo SHCA		
55	Tropical Hardwood Hammock SHCA		
56	NO TARGET SPECIES OCCURENCES		0
56	Black-whiskered Vireo SHCA		
56	Mangrove Cuckoo SHCA		
56	Tropical Hardwood Hammock SHCA		
57	THAMNOPHIS SAURITUS POP 1	1	2
57	WADING BIRD ROOKERY	1	
57	Black-whiskered Vireo SHCA		
57	Mangrove Cuckoo SHCA		
57	Tropical Hardwood Hammock SHCA		
57	Silver Rice Rat Critical Habitat		
58	AJAIA AJAJA	1	51
58	ARDEA HERODIAS OCCIDENTALIS	16	
58	CARETTA CARETTA	1	
58	CHAMAESYCE PORTERIANA VAR PORTERIANA	1	
58	COASTAL ROCK BARREN	1	
58	COLUMBA LEUCOCEPHALA	1	
58	CUPANIA GLABRA	1	
58	EGRETTA RUFESCENS	1	
58	EGRETTA THULA	1	
58	EGRETTA TRICOLOR	2	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
58	EUDOCIMUS ALBUS	2	
58	EUMECES EGREGIUS EGREGIUS	1	
58	FALCO PEREGRINUS	1	
58	JACQUINIA KEYENSIS	1	
58	MARINE TIDAL MARSH	1	
58	NYCTANASSA VIOLACEA	1	
58	ORYZOMYS PALUSTRIS POP 3	1	
58	PANDION HALIAETUS	7	
58	PELECANUS OCCIDENTALIS	3	
58	RALLUS LONGIROSTRIS INSULARUM	1	
58	STERNA ANTILLARUM	1	
58	STERNA DOUGALLII	2	
58	VIREO ALTILOQUUS	1	
58	WADING BIRD ROOKERY	2	
58	Black-whiskered Vireo SHCA		
58	Silver Rice Rat Critical Habitat		
58	Subtropical seagrass beds		
58	Marine aquatic biodiversity site		
59	CHAMAESYCE GARBERI	1	23
59	CHELONIA MYDAS	1	
59	EGRETTA RUFESCENS	3	
59	HARRISIA SIMPSONII	1	
59	HIPPOMANE MANCINELLA	1	
59	JACQUINIA KEYENSIS	3	
59	LINUM ARENICOLA	1	
59	ODOCOILEUS VIRGINIANUS CLAVIUM	2	
59	PINE ROCKLAND	1	
59	ROCKLAND HAMMOCK	3	
59	STERNA ANTILLARUM	1	
59	SYLVILAGUS PALUSTRIS HEFNERI	4	
59	THRINAX RADIATA	1	
59	Black-whiskered Vireo SHCA		
59	Mangrove Cuckoo SHCA		
59	White-crowned Pigeon SHCA		
59	Tropical Hardwood Hammock SHCA		
59	Silver Rice Rat Critical Habitat		
60	ARDEA HERODIAS OCCIDENTALIS	1	7
60	COCCYZUS MINOR	1	
60	DENDROICA DISCOLOR PALUDICOLA	1	
60	DENDROICA PETECHIA GUNDLACHI	1	
60	EUDOCIMUS ALBUS	1	
60	PANDION HALIAETUS	1	
60	VIREO ALTILOQUUS	1	
60	Black-whiskered Vireo SHCA		
60	Mangrove Cuckoo SHCA		
60	Silver Rice Rat Critical Habitat		
61	ARGYTHAMNIA BLODGETTII	1	60
61	CHAMAESYCE PORTERIANA VAR PORTERIANA	6	
61	COASTAL ROCK BARREN	8	
61	COCCYZUS MINOR	5	
61	COLUMBA LEUCOCEPHALA	4	
61	DENDROICA DISCOLOR PALUDICOLA	4	

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
61	DENDROICA PETECHIA GUNDLACHI	2	
61	EGRETTA RUFESCENS	2	
61	EUMECES EGREGIUS EGREGIUS	2	
61	GOSSYPIUM HIRSUTUM	2	
61	HIPPOMANE MANCINELLA	1	
61	JACQUINIA KEYENSIS	9	
61	STERNA ANTILLARUM	2	
61	SWIETENIA MAHAGONI	2	
61	SYLVILAGUS PALUSTRIS HEFNERI	4	
61	THRINAX RADIATA	1	
61	VANILLA BARBELLATA	1	
61	VIREO ALTILOQUUS	4	
61	Black-whiskered Vireo SHCA		
61	Mangrove Cuckoo SHCA		
62	BOURRERIA RADULA	3	18
62	CHAMAESYCE PORTERIANA VAR PORTERIANA	2	
62	COASTAL ROCK BARREN	2	
62	COLUMBA LEUCOCEPHALA	1	
62	DENDROICA DISCOLOR PALUDICOLA	1	
62	JACQUINIA KEYENSIS	2	
62	MARL PRAIRIE	1	
62	ORTHALICUS RESES RESES	1	
62	STERNA ANTILLARUM	2	
62	SWIETENIA MAHAGONI	1	
62	VIREO ALTILOQUUS	1	
62	ZANTHOXYLUM FLAVUM	1	
62	Black-whiskered Vireo SHCA		
63	ARDEA HERODIAS OCCIDENTALIS	9	40
63	CARETTA CARETTA	2	
63	CHARADRIUS MELODUS	2	
63	CHELONIA MYDAS	1	
63	COLUMBA LEUCOCEPHALA	1	
63	EGRETTA RUFESCENS	3	
63	EGRETTA TRICOLOR	1	
63	ERETMOCHELYS IMBRICATA	1	
63	FALCO PEREGRINUS	1	
63	GOSSYPIUM HIRSUTUM	1	
63	JACQUINIA KEYENSIS	1	
63	MALACLEMYS TERRAPIN RHIZOPHORARUM	6	
63	NYCTANASSA VIOLACEA	1	
63	PANDION HALIAETUS	2	
63	PELECANUS OCCIDENTALIS	2	
63	PISONIA FLORIDANA	1	
63	ROCKLAND HAMMOCK	1	
63	STERNA ANTILLARUM	1	
63	WADING BIRD ROOKERY	2	
63	ZANTHOXYLUM FLAVUM	1	
63	Piping Plover Proposed Critical Habitat		
63	Subtropical seagrass beds		
63	Coral reef		
63	Marine aquatic biodiversity site		
64	STERNA DOUGALLII	1	1

Portfolio Site ID #	Ecoregional Target Name	# of Included Occurrences	Total Included
64	Marine aquatic biodiversity site		
64	Coral reef		
65	FALCO PEREGRINUS	1	4
65	PELECANUS OCCIDENTALIS	2	
65	STERNA FUSCATA	1	
65	Subtropical seagrass beds		
65	Coral reef		
65	Marine aquatic biodiversity site		