Thinking Big: A Conservation Vision for the Southeastern Coastal Plain of North America

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Abstract - Maps of wild or roadless areas in North America show that most lie west of the Mississippi River. The Everglades is one exception. Yet there are others. Using existing data, I draw attention to four large areas in the southeast that are worthy of national as well as regional attention. These four (Eglin: 187,000+ ha; Apalachicola: 228,000+ ha; Okefenokee-Oceola: 289,000+ ha; De Soto: 200,000+ ha) have nearby lands that offer the potential to expand the total protected territory for each area to well beyond 500,000 ha. From the North American perspective, these areas are essential elements of a national conservation plan. These areas urgently need (1) land acquisition to link with nearby protected lands and establish ecologically meaningful boundaries, (2) restoration of natural forces (particularly flooding and fire), and (3) forestry practices focused upon restoration.

Introduction

Over the past decade, inspiring conservation visions have been presented for wild lands in the American west, as well as for the deciduous forests of the northeast (e.g., Quinby et al. 2000, Sayen 1995/1996). These conservation visions were assisted by the presence of large tracts of publicly owned land. Even the extensively urbanized eastern landscapes have at least two wild areas—the Adirondacks to the north and Great Smoky Mountains National Park to the south. When I travel and lecture, I am struck by how many students have heard of Yellowstone, the Great Smoky Mountains, and the Everglades, but when I mention the coastal plain of the southeast and its remarkable diversity, I usually receive puzzled looks. Even when I speak within the region, it regularly appears that local residents do not appreciate the national significance of their landscape, nor do they have an awareness of our priority conservation areas.

The coastal plain of the southeast has expansive areas covered in fire-dominated pine forests, once interrupted only by rivers meandering through equally vast acreages of swamp. Once a land of *Alligator mississippiensis* Daudin (American Alligator) and *Gopherus polyphemus* Daudin (Gopher Tortoise), wild orchids and carnivorous plants, *Campephilus principalis* L. (Ivory-billed Woodpecker) and *Conuropsis carolinensis* L. (Carolina Parakeet), and panthers and wolves, it has been settled by European humans for hundreds of years (Silver 1990). We need to present the nation with a conservation vision for the southeast region of North America equivalent in scope to Yellowstone to Yukon for the Northwest, or Adirondacks to Algonquin for the Northeast. This is not to say that local groups do not have a plan (indeed, as I shall mention, both the

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Environmental Protection Agency [EPA] and The Nature Conservancy [TNC] do), but my impression is that outside of these dedicated working groups, few North Americans apparently know of or appreciate the significance of this work. The core areas have limited profile, except among specialists. Even the most superficial inspection of public maps showing roadless areas (The Wildlands Project 1993), wilderness areas, or national parks, illustrates how the southeastern coastal plain has been significantly under-represented in national conservation planning. It might not matter if the coastal plain were an area of low conservation importance. It is, however, an area with some of the highest biological diversity in North America and many endemic species (Estill and Cruzan 2001, Stein et al. 2000, White et al. 1998). Freshwater fish, wading birds, and carnivorous plants are but three examples of fauna and flora that here attain their highest levels of species diversity on the continent.

Simultaneously, the southeastern coastal plain has had a long history of exploitation through logging, agriculture, the naval stores industry, plume hunting, and levee construction (Silver 1990, White et al. 1998, Williams 1989). The dominant ecosystem type, *Pinus palustris* P. Mill. (Longleaf Pine) savannas, has been reduced to mere fragments comprising well under 5 percent of its original extent (Christensen 1988, Folkerts 1982, Herman 1993, Platt 1999). Fire is no longer a natural force in the landscape. The southeast was also the home of now extinct species including Ectopistes migratorius L. (Passenger Pigeon) and the Carolina Parakeet. The Ivory-billed Woodpecker, thought to be extinct (Sibley et al. 2006), is believed by some to have recently been discovered in Arkansas (Fitzpatrick et al. 2005). Canis rufus Audubon & Bachman (Red Wolf) and *Puma concolor coryi* Bangs (Florida Panther) are on the verge of extinction. Invasive species including Triadica sebifera (L.) Small (Tallowtree), Ligustrum japonicum Thunb. (Japanese Privet), Imperata cylindrica (L.) Beauv. (Cogon Grass), and *Pueraria montana* (Lour.) Merr. (Kudzu) are causing significant changes in composition and function.

There is no single name for this vast area, which I have referred to as the southeast and the coastal plain. Such inconsistent terminology probably reduces its profile and complicates conservation planning (compare this to the immediate name recognition of the Great Smoky Mountains or the Everglades). From the perspective of physiography, it is the East Gulf Coastal Plain and, further east, the Sea Island section of the Coastal Plain (Fig. 1). According to World Wildlife Fund's ecoregion classification (WWF 2001), it is part of the Southeastern Conifer Forest. Based on the ecoregion map used by The Nature Conservancy (Sotomayor 2004), it is part of the East Gulf Coastal Plain and the South Atlantic Coastal Plain.

It is not clear why the southeastern coastal plain has languished from the perspective of national concern. It may be the lack of one recognizable name, or the apparent lack of a pre-existing protected land base, or the lack of a major national park. Perhaps we are distracted by the Great Smoky Mountains to the north, and the Everglades to the south, and think that there is little in between. Perhaps the population density of conservationists in the southeast is lower than elsewhere. Even Foreman's (1993) otherwise visionary proposal for Wilderness Recovery Complexes East of the Rockies has the same weakness—it mentions a mere seven sites—five in the north, plus the Great Smoky Mountains and the Everglades, while *The Big Outside* (Foreman and Wolke 1992) has similar limitations.

Have we already reached the point where all hope of wild areas in the southeast has vanished? This article is to remind us otherwise, and to draw attention to the existence of large, comparatively wild core areas, as well as potential components of inter-core corridors. Both are essential elements of a wild land recovery vision (Carr et al. 2002, Noss 1993). This vision summarizes the strategic goal and suggests a public, educational, and scientific focus for coordinated effort in land-use planning and conservation across the southeast.

Wild Areas and Core Selection Criteria

I use the term "wild area" rather than the more divisive word "wilderness" to describe the areas selected for discussion. The southeast has been developed for so long, and with such intensity, that there are no large areas that have not in some way been impacted by humans. Most southern ecosystems require fire, and fire regimes have been altered for decades if not centuries. The largest remaining swamps, including the Atchafalaya in the west and the Okefenokee and Great Dismal swamps in the east, are scarred by canals and drainage ditches. Since the legal definition of wilderness is exquisitely narrow, I do not want to ignore areas that have great potential for restoration as wild places merely

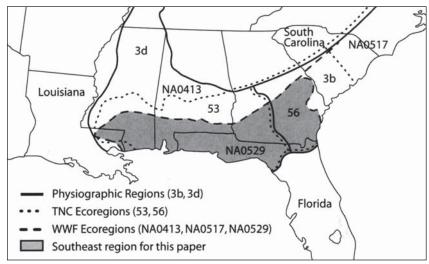


Figure 1. The Atlantic coastal plain, from Louisiana to South Carolina (excluding the Florida peninsula) is divided into two physiographic regions (3b - East Gulf Coastal Plain, 3d - Sea Island section), three ecoregions by World Wildlife Fund (NA0413 - Southeastern Mixed Forest, NA0529 - Southeastern Conifer Forest, NA0517 - Middle Atlantic Coastal Forest), and two ecoregions by The Nature Conservancy (53 - East Gulf Coastal Plain, 56-South Atlantic Coastal Plain). This paper focuses on the shaded area.

because they do not now qualify as legal wilderness. Our focus is the big picture, as emphasized by Michael Soulé (1993:7):

"Repair—restoring and reconnecting the land—will take time ... Road building in major sections of National Forests and BLM lands will have to cease, and many existing logging roads will have to be closed. In the lowlands, some eroding and degraded croplands ... will have to be converted to other uses. It is no simple matter to repair the ravages of centuries. ... The key is thinking BIG in both space and time."

The area of interest is somewhat arbitrarily established as the Southeastern Conifer Forest Ecoregion from Mississippi to South Carolina, and south to include the Florida Panhandle. This region (Fig. 1) fits rather well with physiographical and biological reality. It also meshes with an earlier effort that addressed the more northern section of the coastal plain (Keddy and Wisheu 1994), which extends into central Nova Scotia, where the Tobeatic Biosphere Reserve now has a core area of some 141,750 ha.

I examined existing data sources to identify (1) large wild areas of about 200,000 ha in some form of protected status, and (2) adjoining or satellite lands giving the potential for increasing the total area to 500,000 ha. (ca. 1 million ac.). Areas of this size would be large enough to allow natural lightning-caused fires to burn with minimal human intervention, and large enough to support indigenous large carnivores including the Florida Panther and Red Wolf, as well as the omnivorous *Ursus americanus* Pallas (Black Bear). I began with an important, but frequently overlooked, map of forested lands in the southeast (Fig. 2). I also consulted the short list of the largest wild areas on World Wildlife Fund's web site for the Southeastern Conifer Forest Ecoregion (WWF 2001). I also drew upon the EPA Southeastern US Ecological Framework Project (Carr et al. 2002) and the East Gulf Coastal Plain Ecoregional Plan (The Nature Conservancy 2001). These and other documents were further consulted to identify some of the smaller conservation lands mentioned as potential corridor components.

Although habitat type, in addition to size, is often used in natural area evaluation, it was not used as a criterion for core-area identification because the main objective was to see the big picture—to find big wild areas. Whether a wild area contains cypress swamps or Longleaf Pine forest, for example, is less important—both southern forested wetlands and Longleaf Pine forests are among the endangered ecosystems of the United States (White at al. 1998). Further, most sources described habitat mixes of protected areas, but often without figures for acreage of specific habitat types.

The Conservation Vision

Priority areas for ecosystem conservation

Four core areas of relatively wild land occur in the southeastern coastal plain region (Fig. 3). Each core contains a central large area with some degree of protection, along with adjoining or satellite protected areas. Each has the capacity to protect many examples of endangered coastal plain ecosystems, including Longleaf Pine forests, swamps, and mixed deciduous forests. These areas have the long-term potential not only to support species

endemic to the region, but also to include large carnivores that need large continuous blocks of land, such as wolves and panthers.

Eglin Air Force Base (187,694 ha; Fig. 3) is one of the area's largest blocks of federal land. Indeed, it was, called Choctawhatchee National Forest before it was converted to military use in 1940. Just north of Eglin is Blackwater River State Forest (76,786 ha), and adjoining that forest to the north (in Alabama) is Conecuh National Forest (33,935 ha). The Yellow River Ravines, a 6744-ha parcel proposed for acquisition by the State would directly link the air force base and state forest (FDEP 2005). To the east, the base is linked to the 23,206-ha Choctawhatchee River Water Management Area by Nokuse Plantation (Florida Wildlife Federation, undated). A conservation easement has been approved by the State for about 45% of this 21,465-ha private conservation area (FDEP 2005). Together these areas comprise some 343,100 ha.

Apalachicola National Forest (Fig. 3) is also one of the largest consolidated blocks (228,420 ha) of public land east of the Rocky Mountains according to Kane and Keeton (1993). Satellite sites include Tate's Hell State Forest (74,925 ha), Apalachicola River Wildlife and Environmental Area (33,434 ha), Tates Hell/Carrabelle Tract (5374 ha acquired; FDEP 2004), St. Marks National Wildlife Refuge (27,540 ha), and Aucilla Wildlife Management Area (43,095 ha). Together these sites comprise about 412,800 ha.

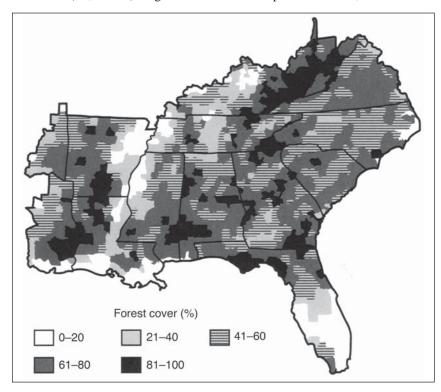


Figure 2. Significant areas of forest still exist along the coastal plain. Percent forest cover was determined for each county in the region (from Boyce and Martin 1993).

Okefenokee-Oceola (Fig. 3) is the third core area. Okefenokee National Wildlife Refuge, largely in Georgia, protects 160,380 ha of swamp of which more than 141,750 are designated a National Wilderness Area. Osceola National Forest, just south of the Okefenokee, adds some 81,000 ha of swamp and flatwoods. These two areas have been joined by 47,603 ha of the Pinhook Swamp purchased by the State of Florida (FDEP 2005). This core area is currently about 289,000 ha.

De Soto National Forest, the most western of the core areas (Fig. 3), is probably the least well known of the four, and also the most fragmented. It comprises more than 202,500 ha, although some 54,675 ha of this have been allocated to the military as Camp Shelby. De Soto lacks ecologically meaningful boundaries; there are two units separated by 25 km, the southern one being deeply constricted into almost two separate areas. As well, many in-holdings remain in private hands. Satellite areas that one day might be linked to De Soto include: in the west, the 15,188-ha Bogue Chitto National Wildlife Refuge along the Pearl River; in the north, the 61,050-ha Chickasawhay Wildlife Management Area; and in the south, the 7695-ha Mississippi Sandhill Crane National Wildlife Refuge. Together these areas total roughly 286,400 ha. The gaps between the national forest and these satellite areas are significant. A partnership to conserve the lower Pearl River (easternmost Louisiana/Mississippi boundary) may be useful in catalizing a linkage with Bogue Chitto (The

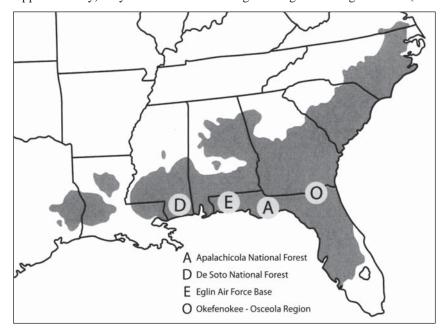


Figure 3. Four core areas (each with about 200,000 ha in public ownership) where it may be possible to assemble wild areas of more than 500,000 ha. The map also shows the geographical distribution of Longleaf Pine (gray shaded area), one of the characteristic tree species of the coastal plain.

Nature Conservancy 2005b). The forested area map (Fig. 2) shows potential for core extension northeast into Alabama as well.

These four core areas are part of several regional conservation initiatives that aim to protect biodiversity of the southeastern coastal plain. For example, the Eglin Air Force Base and Apalachicola National Forest are both considered significant core areas in Florida (Cox et al. 1994, Florida Greenways Commission 1994; although in the latter report, they are called hubs rather than cores). They are also the endpoints of the Northwest Florida Greenway planning corridor—a conservation corridor/military base buffer being created jointly by numerous organizations (FDEP 2004). The hub/core maps fail to emphasize, however, that these are national—indeed continental—priorities rather than just state core areas. Adjoining natural areas across the northern border of Florida that cross state boundaries are rarely shown, seriously misrepresenting the true size of these blocks of wild lands. An Environmental Protection Agency study (Carr et al. 2002) indicated that both the Eglin and Apalachicola cores were significant natural areas, but their map included a vast region, conveying the impression that the four core areas were dwarfed by the Everglades. Figure 4 reproduces one east-west slice out of the Carr et al. (2002) map of priority and significant ecological areas. The Nature Conservancy, appropriately, regards the Apalachicola River and Bay as one of their priorities for North America (The Nature Conservancy 2003).

In my experience, the Okefenokee-Osceola area is under-appreciated, perhaps because it straddles a state border, perhaps because the Okefenokee is largely swamp while the Osceola is largely Longleaf Pine forest, or perhaps

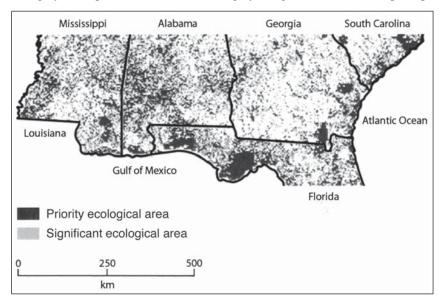


Figure 4. Priority ecological areas and significant ecological areas were mapped by a group working for the EPA (Carr et al. 2002). This figure is an east—west slice from their larger map to focus on eastern coastal plain habitats (and also to avoid distraction by the Great Smoky Mountains and the Everglades).

because of the cumbersome name. A single state, or single habitat perspective would equally fail to convey adequately the enormous core area for wild land recovery that can be perceived when political and ecological boundaries are set aside. The future for this area seems promising, since over 60% of the Pinhook Swamp, which directly links these large areas, has been acquired by the State of Florida, and the remainder is recommended for purchase (FDEP 2005).

De Soto National Forest and the surrounding landscape merits much higher significance than it is normally accorded. The southern parts of De Soto, being flatter and wetter, and containing extensive wet savannas, may have the greatest ecological significance. Its regional significance is often overlooked. Large-scale maps of the southeast naturally tend to emphasize the Okefenokee and the Everglades. State maps fail to place De Soto in its appropriate national ecological context—that of coastal plain ecosystems in general and Longleaf Pine savannas in particular. Whichever way you map it, De Soto's significance is minimized. The US Forest Service website for De Soto (www.fs.fed.us/r8/mississippi/desoto) illustrates how little the public is told about the potential of this core area.

Opportunities for core-area linkage

Core areas will eventually need to be linked, and there are many opportunities for connecting these areas (e.g., Carr et al. 2002, The Nature Conservancy 2001). In many respects, these details have to be left to regional agencies with local experience. The good news is that there has been a steady acquisition of lands for this purpose. Again, however, I am left with the clear impression that land acquisitions in the Rocky Mountains often publicize the national perspective of interconnected cores and corridors (e.g., Yellowstone to Yukon), while our acquisitions in the southeast are not clearly identified as fitting into a large regional restoration strategy. Some details of ongoing opportunities follow. Of course, the details change rapidly as the network grows.

The Apalachicola River (along with the Flint and Chattahoochee rivers) has been linked to the Appalachian Mountains since the early Cenozoic, and has a rich mixture of temperate forest species, as well as endemic plants such as *Torreya taxifolia* Arn. (Florida Nutmeg) and *Taxus floridana* Nutt. ex Chapman (Florida Yew) (Platt and Schwartz 1990). The bluffs and rivers in this area have some of the highest tree species densities found in the eastern United States (Platt and Schwartz 1990). Currently, this habitat is protected in the Apalachicola Bluffs and Ravines Preserve (The Nature Conservancy) and Torreya State Park. Over 10,125 additional ha (St. Joe Timberland and Apalachicola River candidates) scattered along a 60-km stretch of the Apalachicola River from Chattahoochee to Orange, and 5483 ha along one of its tributaries (Middle Chipola River) are recommended for acquisition by the state as conservation land (FDEP 2005).

Between the Apalachicola core and the Eglin core (Fig. 3) lie several conservation lands, proposed for purchase in the State's Florida Forever Program (FDEP 2005), that could serve as elements in an inter-core linkage. The largest are Sand Mountain (13,916 ha, 48 km NW of Tates Hell State Forest), and a large area around Lake Wimico (about 16,200 ha of St. Joe Timberland property), located adjacent to Apalachicola River Wildlife and Environmental Area.

The Okeefenokee-Oceola core area is connected by the Pinhook Swamp to a corridor of protected land (state parks, state forests, wildlife management areas, water management district conservation lands) that stretches along the Suwannee River (Suwannee River Water Management District undated). The majority of the coastline from Lower National Wildlife Refuge (21,439 ha), at the mouth of the Suwannee, north through Big Bend Wildlife Management Area (27,990 ha) to St. Marks National Wildlife Refuge (near Apalachicola National Forest), and from the Suwannee south to Chassahowitzka National Wildlife Refuge (over 12,555 ha), has been designated conservation land (FFWCC 2001, 2004). This corridor is the longest stretch of undeveloped coastline in the continental US. (R. Noss, University of Central Florida, Orlando, pers. comm.). There are also plans to connect the Oceola area, via the Camp Blanding-Oceola Greenway (61,965 ha), to Raiford Wildlife Management Area and Camp Blanding Military Reservation located about 40 km to the southeast (FDEP 2004).

The Eglin and De Soto core areas are separated by 160 km—the same distance between the Apalachicola and Okefenokee-Oceola areas, but almost one and a half times the distance between the Eglin and Apalachicola areas. In addition to distance, creating linkages between De Soto and Eglin is most challenging because it necessitates crossing two different state boundaries. Several parcels of land along the Perdido River (the western boundary of Florida with Alabama) totaling 3159 ha have been recommended for acquisition by the State of Florida (FDEP 2005). In the southwestern third of Alabama, there are numerous conservation lands that could play a role in this linkage. Eleven tracts of land under the Forever Wild Program, ranging from 7.7 to 14,497 ha, have been acquired by the state for a total of 18,396 ha (ADCNR 2004a). An additional 51,156 ha have been designated as wildlife management area (ADCNR 2004b). In the Mississippi portion of the gap between De Soto and Eglin, 1985 ha of nature preserve (The Nature Conservancy 2005a), and 20,395 ha of wildlife management area (MDWFP 2004) could also contribute to the linkage.

Putting it back together

While one cannot deny the national significance of the Everglades and the Great Smoky Mountains, it is my consistent impression that conservationists continue to overlook the national importance of intervening areas such as the East Gulf Coastal Plain. This oversight has negative consequences for public awareness, and eventually for funding. The areas highlighted in this article would be core areas in national conservation plans with the long-term objective of re-wilding (sensu Foreman 2004) areas of the coastal plain. Acquisition of land in the vicinity of all four core areas is needed to (1) link the central core area with nearby satellite lands and (2) establish ecologically meaningful boundaries. Land acquisition is the first priority because fragmented habitats are inherently difficult to manage, particularly when fire and flooding are the key landscape regulating processes, and when large predators roam across large areas.

Once appropriate ecological boundaries are established, the natural processes that create the characteristic composition and pattern of our southeastern landscape could be increasingly allowed to operate. These processes would include natural fire regimes, particularly frequent burns ignited by lightning (Platt 1999, Shlisky et al. 2007, Sutter and Kral 1994) and natural hydrological pulses such as spring floods (Keddy 2000, Middleton 2002, Sutter and Kral 1994). Large native carnivores including the Florida Panther and Red Wolf could be reintroduced. This would restore food webs, and possibly protect plant communities from over-grazing by herbivores (Alverson et al. 1988, McGraw and Furedi 2005). As contiguity increased, it would also be desirable to remove roads and other human artifacts from these core landscapes. Roads create many problems for wild species and wild areas (Forman et al. 2003). For example, roads create firebreaks and restrict fire management owing to potential lawsuits from motorists who might be injured in accidents related to smoke. Given the rapid pace of development in the south, building continuous core land units must be a top priority. Logging can be carefully controlled, with the focus upon forestry techniques that restore natural communities, and slowly phased out where inappropriate. Careful logging of Pinus taeda L. (Loblolly Pine), Pinus elliottii Engelm. (Slash Pine) or Pinus clausa (Chapman ex Engelm.) Vasey ex Sarg. (Sand Pine) (depending upon the coastal plain region) followed by burning may actually benefit many areas, and begin the process of conversion back to Longleaf Pine.

The need to establish ecologically meaningful boundaries is most obvious in the case of De Soto, where the existing area of national forest is deeply divided and large private in-holdings are at risk of development. The region is also at greatest risk from development spilling northward from the casino culture of Biloxi and Gulfport. Consider *Rana sevosa* Goin and Netting (Dusky Gopher Frog). It once extended from the Mississippi River to the Mobile River. Last seen in Alabama in 1922 and last seen in Louisiana in 1967, a mere 100 individuals now survive—in one pond on the southern edge of De Soto. Here, a residential development, golf course, new and expanded highways, and a proposed reservoir all threaten these last few individuals (USFWS undated).

To complete the conservation vision, we must eventually link the core areas to each other, and to other large wild areas. I have already mentioned that there are numerous smaller protected areas being acquired as potential stepping stones to create corridors of ecologically functional conservation land. River valleys also provide an opportunity. This is ironic, even counter-intuitive, since rivers have often been major ecological barriers to species on the coastal plain as illustrated by the patterns of endemism (Estill and Cruzan 2001). Being the biggest river by far, the Mississippi has been the most pervasive barrier, and different, but related, species often occur on each side. River corridors (and their multiple branches and tributaries) would also have been significant barriers to fire. Yet river corridors may now provide a tool for rebuilding some linkages. To start, land acquisition along rivers and swamps often incidentally includes adjoining uplands, which, rather than being unwanted acreage, may contain significant ecosystems in their own right. Watercourses provide natural eco-

logical boundaries for uplands, and likely enhance opportunities for wild and prescribed fires. Finally, although they may not offer direct routes for linkage, networks of river corridors are already widespread in the region. With growing evidence that global warming is likely to change sea levels (Bindoff et al. 2007, Rahmstorf et al. 2007) and local climates (Meehl et al. 2007), particular emphasis should likely be placed upon north—south corridors to allow species to migrate inland and northward. Conveniently, major river valleys like the Apalachicola River could play a role here, just as they may have done in the past.

Certainly there are many additional areas important for conserving biodiversity in the southeastern coastal plain, as is recognized by The Nature Conservancy's ecoregional plans. Some are small fragments of unusual ecosystems with endemic species having very local distributions well outside the four large blocks described here. Other important large blocks of land in the southeast lie outside the Southeastern Conifer Forest Ecoregion. Two notable examples west of the Mississippi, but still on the coastal plain, exceed 200,000 ha. The Big Thicket/Sabine/Kisatchie area on the Texas/Louisiana border is dominated by fire-controlled conifer forests and the Atchfalaya Swamp, consisting of flood-controlled cypress swamp and bottomland hardwoods, is possibly the largest swamp in the nation and part of the Mississippi River floodplain. On the eastern (Atlantic) extreme of the coastal plain, the Great Dismal Swamp/Pocosin area occurs on the boundary of Virginia and North Carolina. The nearby Alligator River National Wildlife Refuge protects more than 60,750 ha, and the Great Dismal Swamp National Wildlife Refuge protects another 40,500. Protected lands in this latter wetland area are badly fragmented, and building a core area will require much more effort. Even so, Red Wolves have been successfully reintroduced to the Alligator River National Wildlife Refuge.

In conclusion, protecting coastal plain land with ecologically reasonable boundaries is essential. As larger blocks of land are acquired, natural processes can increasingly be restored. I suggest that we have to do a better job of emphasizing the national significance of the coastal plain region recognized here (Fig. 1) to audiences both within and outside the region. Without a regional and national constituency, the area will receive a lower priority than it deserves. We may have to consider coming up with new names for some of these areassomehow it is hard to make the case to an audience that Yellowstone National Park and Eglin Air Force Base might have equal biological significance. There is so much more than an air base, but who would guess? We could also place greater emphasis in our teaching, writing, and research upon the important core areas that comprise a national conservation plan for the region. We could find a way to publicize the regional conservation plans already in existence (such as the EPA and TNC plans), in a way that does not compromise future land acquisition—we might begin, as I have done here, by at least naming our four core areas on a single regional map. Perhaps a future special issue of Southeastern Naturalist could focus upon the major features of the core areas for educational and research purposes. We could think more about how to re-establish natural fire and flooding regimes in these areas. Finally, with forecast changes in human population distribution, climate, and sea level, we will also need to build a system that is resilient in the face of future pressures.

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