



CFEOR Wildlife Research

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Today's Realities

- Rising public demand for natural resources
- Shrinking budgets & mounting costs
- Effects on wildlife:
 - habitat loss
 - habitat degradation
 - need to do more with less
- If we don't act now, future generations will inherit diminished opportunities to enjoy the great outdoors
- More than ever before, conservation success requires effective cooperation

CFEOR Foundational Principles...

- Unite universities, public agencies, industrial and family forest landowners, and NGOs
- Pool resources to promote more comprehensive research and education efforts
- Enable groups with limited resources to accomplish things they couldn't do alone
- Ensure the research being done in academia is of practical use to managers



CFEOR is currently addressing issues considered timely priorities by wildlife management experts

- Climate change
- Invasive plants
- Forest management practices
- Management of valuable habitat
- Habitat restoration



Climate Change

- Emerging issue
- Likely to significantly impact wildlife populations and their habitats through changes in:
 - weather patterns
 - plant phenology
 - timing of availability of food resources, etc
- We do not yet understand how to manage habitat so that wildlife will be able to adapt and survive



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- “Changing face of southern forests: interactive effect of **climate change**, land conversions, and invasive plants”

Invasive Plants

- Cause changes in:
 - food availability
 - food web relationships
 - pollination
 - vegetation composition; habitat structure; fire behavior
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- “Changing face of southern forests: interactive effect of climate change, land conversions, and **invasive plants**”
 - “Ecological consequences and impacts of **invasive plants** on southern forest ecosystems”
 - “Use of low-volume, backpack directed sprays of glyphosate, metsulfuron, and imazapyr herbicides for selective control of **Japanese climbing fern** in Florida’s natural areas”



Forest Management Practices (creating uneven-aged stands)

- Even-aged stands of trees provide uniform habitat conditions; each stand is usable for a narrow group of wildlife species
 - Uneven-aged stands have higher structural diversity; each stand supports greater wildlife diversity
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- “Development of an adaptive multifunctional **uneven-aged** management system for the longleaf pine sandhills and flatwoods of the southern U.S. coastal plain”
- “Conversion of even-aged slash pine plantations to **uneven-aged** slash pine stands: implications for timber production, ecology, and fire risk”



Management of valuable habitat types

- Uncommon habitat types can be especially valuable to wildlife
 - Wet areas are often easily degraded and therefore need special attention
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- “Recovery & regeneration of **forested wetlands** following timber harvest: evaluation of best management practices in Florida”
 - “Management options for **hardwood forests** of Florida: sustaining timber production, biodiversity, and wildlife habitat”



Understory restoration

- Many wildlife species are influenced more by understory plants than by the trees overhead
 - However, we generally know less about the understory than we do about the trees
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- “Facilitating **wiregrass groundcover restoration**, enhancement and preservation in xeric sandhill vegetation communities in the endangered longleaf pine-wiregrass ecosystem”
 - “Assessment and compilation of **understory vegetation restoration** techniques applicable to forests of the southeastern US”



Aristida stricta



Dicranthelium spp.

Habitat restoration - fire

- “Multi-scale modeling of **fire dynamics** to assess longleaf pine regeneration success”
- “**Fire** in the Juniper Prairie Wilderness Area: is it a viable tool for ecosystem management?”
- “Scrub Jay responses to **wildfire** in the Juniper Prairie Wilderness”
- “Conversion of even-aged slash pine plantations to uneven-aged slash pine stands: implications for timber production, ecology, and **fire risk**”
- “Response of bat communities to **prescribed fire** in pine forests of Florida”
- “Fuel lifecycles and **fire behavior** response to fuel treatments in southeastern US pine ecosystems”



CFEOR is addressing priorities identified by FWC's "Comprehensive Wildlife Conservation Strategy"

- **"Species of Greatest Conservation Need"**
 - Florida scrub jay
 - Bats (11 of Florida's 13 resident species)
- **"Priority habitats"**
 - sandhills
 - scrub
- **"Statewide threats"** facing wildlife
 - incompatible fire management
 - incompatible recreational activities
 - invasive plants
 - degradation of water resources



CFEOR - Wildlife Research

