# WOOD PELLET INDUSTRY HARMS BIRDS OF CONSERVATION CONCERN IN THE U.S. SOUTHEAST



Wood pellet cut on the Roanoke River, North Carolina

Operation of the wood pellet industry in the southeastern United States contributes to irrecoverable loss of ecologically valuable forest ecosystems and further imperils many bird species that depend on those forests, while at the same time contributing to climate change.



Prothonotary Warbler

The rapidly expanding wood pellet export industry in the southeastern United States is contributing to steep declines in the area's bird populations by degrading the native forests on which birds depend.

The vast majority of wood pellets are made from living trees, which are often harvested by clear felling, before being ground into chips, dried, and formed into pellets. Wood pellets are transported to ports where they are shipped to Europe to be burned instead of coal to produce energy. Flawed European climate policies consider biomass energy to be "carbon neutral" when, in fact, burning wood pellets instead of coal actually puts more carbon into the atmosphere per unit of energy produced. The carbon debt created by harvesting whole trees will exist for 40 to 100 years, resulting in more, not less, carbon in the atmosphere for decades to come. This destructive industry is propped up by billions of dollars annually in UK and EU government subsidies.

Nearly all of the sourcing of wood pellets in the United States for export is from the North American Coastal Plain, the flat coastal region that stretches from Virginia to Texas. This region provides access to forests and ports, and essentially no regulation of forest harvest activities. The North American Coastal Plain is one of only two world biodiversity hotspots in the United States. It was designated a biodiversity hotspot in 2016 because of its high species richness, uniqueness, endemism, and because less than 30% of its native vegetation remains. The world's 36 biodiversity hotspots cover 2.4% of Earth's surface but support half the world's plant species and 43% of the world's bird, mammal, reptile, and amphibian species as endemics. In a word, these areas are irreplaceable.

### **Degradation of Native Forests**

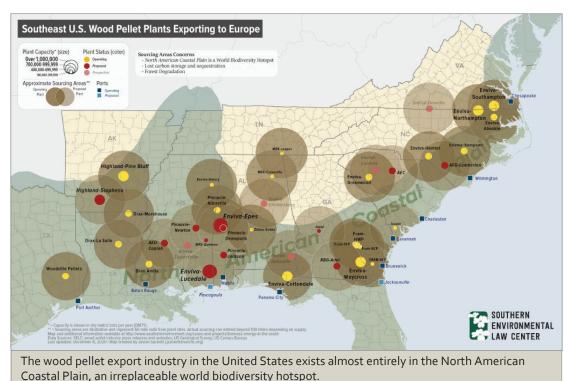
The harvest and degradation of native forests to manufacture wood pellets in the southeastern United States harms many bird species. Historical loss of native forests has resulted in the probable extinction of two bird species: the Ivory-billed Woodpecker and Bachman's Warbler. At least one other species is in danger of extinction, and several others are declining and of conservation concern. Three main native forest types occur in the North American Coastal Plain and provide habitat for these birds: upland hardwoods, wetland or bottomland hardwoods, and native pine forests – and the pellet industry targets all three.

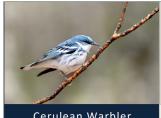
Large areas of bottomland or wetland forests have been harvested to supply the wood pellet industry, significantly degrading forests and destroying sensitive habitats. These wetland forests are particularly important to migratory songbirds that breed in these forests and migrate to the Caribbean and Central and South America. Over 60% of these wetland hardwood forests have been drained and lost. Several bird species have declined significantly and are designated of conservation concern. Demand for wood pellets and additional destruction of these forest habitats will harm these species and contribute to further decline. Affected bird species and declines over the past 50 years include: Rusty Blackbird (–89%), Prothonotary Warbler (–38%),

Kentucky Warbler (-29%), Cerulean Warbler (-72%). The Cerulean Warbler is declining at one of the fastest rates of any North American songbird, and the Wayne's subspecies of Black-throated Green Warbler is endemic to these wetland forests and only a few isolated populations remain.

Upland hardwood forests are also felled for wood pellet production, harming bird species of conservation concern. Some species dependent on these forests have declined significantly and will be further harmed by harvesting of these forests for wood pellets: Yellow-billed Cuckoo (-54%), Chuck-wills-widow (-63%), Eastern Whip-poor-will (-69%), Wood Thrush (-60%), and Painted Bunting (-9%).

The wood pellet industry also targets native pine forests. Longleaf pine forests were once the dominant forest type in the North American Coastal Plain, covering over 36 million hectares. Only 4% of this once vast forest remains. The endangered Redcockaded Woodpecker has declined 81% in the last 50 years and clings to existence in the remaining fragments of this forest. Nearly the entire world populations of Bachman's Sparrow (-76%) and Brown-headed Nuthatch (-18%) are found in these native pine forests. Northern Bobwhite (-83%) and Red-headed Woodpeckers (-67%) have also suffered dramatic declines and are harmed by harvest of these native pine forests. Only a few pairs of the southeastern subspecies of American Kestrel now breed in these native pine forests.





#### Cerulean Warbler



Brown-headed Nuthatch



Bachman's Sparrow



Black-throated Green Warbler



Yellow-billed Cuckoo



Painted Bunting

## **At-Risk Bird Species** Harmed by Pellet Harvesting

Northern Bobwhite 1, 2

Yellow-billed Cuckoo<sup>2</sup>

Chuck-will's-widow 1, 2, 3

Eastern Whip-poor-will 1, 2, 3, 4

Chimney Swift 1, 2

Swallow-tailed Kite 3, 5

American Woodcock 4,5

Bald Eagle 3, 5

Red-headed Woodpecker 2, 3, 4

Red-cockaded Woodpecker 1, 2, 4, 6

Wood Stork 5, 6

Ivory-billed Woodpecker 1, 2, 4, 7

American Kestrel <sup>3</sup>

Brown-headed Nuthatch 3

Wood Thrush 2, 3, 4, 5

Bachman's Sparrow 1, 2, 3, 4

Rusty Blackbird 1, 2, 3

Bachman's Warbler 1, 2, 4, 7

Blue-winged Warbler 3

Prothonotary Warbler 2, 3, 4, 5

Swainson's Warbler <sup>3</sup>

Kentucky Warbler 2, 3, 4

Cerulean Warbler 1, 2, 3, 4, 5

Prairie Warbler 2, 3, 4

Black-throated Green Warbler 2,3

Painted Bunting<sup>3</sup>

- <sup>1</sup> IUCN Critically Endangered, Endangered, Vulnerable, or Near Threatened.
- <sup>2</sup> Partners in Flight, North American Landbird Conservation Plan (Species of Continental Concern/Species of Continental Importance) (2016).
- <sup>3</sup> US Fish & Wildlife Service, Birds of Conservation Concern (Southeastern Coastal Plain
- <sup>4</sup> American Bird Conservancy WatchList (2016).
- <sup>5</sup> National Audubon Society WatchList.
- <sup>6</sup> Federal Endangered or Threatened.
- <sup>7</sup> Federal Endangered, possibly extinct.



Swallow-tailed Kite



Red-headed Woodpec**k**er



Prairie Warbler



**Wood Thrush** 



Wood Stork



Kentucky Warbler

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