Forest Stewards Guild
putting the forest first

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Forest Stewards Guild Position Statement

Developing Sustainable Practices for the Full Spectrum of Forest Management

Forests are among the most widespread and important biomes on Earth, providing essential goods and services to humankind and a majority of the planet's other animal and plant species. The Forest Stewards Guild recognizes the importance of conserving this array of values and supports the development and application of sustainable forest management practices across the full spectrum of management intensities, from forest plantations managed intensively for wood products to natural forests managed primarily for values best protected with more limited human intervention. This position statement is based on several existing Guild policy statements, including those on Silviculture for Natural Forests and Silviculture for Planted Areas.

Today, forests occupy approximately one-third of Earth's land area, provide habitat for more than three-quarters of terrestrial plant and animal species, and contain about two-thirds of the carbon present in living organisms (UCMP 2022; Reid and Lovejoy 2022). Forests have played an essential role in providing humankind with food, shelter, and energy from the earliest periods of human civilization through to the present day. In the far distant past, forests quite literally helped make the planet suitable for most of life as we know it (Holland 2006). More recently, forests have played a key role in facilitating the stable global environment that has coincided with the development of human civilization and supported it throughout its 12,000-year history (Dvorak 2021). Today, they continue to ameliorate human influences on the global climate (Kirschbaum 2003) that would otherwise negatively impact many of the world's species including our own (Lovejoy and Hannah 2019).

Central to the mission of the Forest Stewards Guild is facilitating the development of the scientific knowledge and forest management practices that will: conserve forests including all forest types; sustain them for the full array of goods, services, and values they provide; and maintain their resilience in the face of continuing environmental change. Intensive forest management and planted forests can play a critically important role in meeting human needs for food, shelter, and energy from a relatively small proportion of the world's forest land (Sedjo and Botkin 1997; Pirard et al. 2016). Well-managed planted forests can secondarily provide valuable wildlife habitat and watershed protection, and reduce demand pressures on high conservation value forests elsewhere (Cabarle et al. 2006; Price et al. 2006). The Forest Stewards Guild also supports the development of extensive forest management that prioritizes the protection of critical watersheds and soils, conserves habitat for sensitive or imperiled plant and animal species, and maintains and enhances existing forest carbon stocks and sequestration capacity. The Forest Stewards Guild supports management practices that maintain and add to existing forest carbon storage consistent with maintaining other key values of forests including sustainable harvesting for wood products.

The world's forests are increasingly being called upon to play their most ancient role, that of moderating climate at the global scale. Of all the technological mechanisms devised to reduce the atmospheric concentration of carbon dioxide and other greenhouse gases, forests are by far the most effective, least-cost, and most readily applicable means of reabsorbing greenhouse gas emissions from other human activities (Griscom et al. 2017). In tropical forests, where most of the ecosystems' carbon is in the vegetation itself, this means sharply reducing current rates of deforestation and forest loss. By contrast, most of the carbon in boreal forests—nearly two trillion metric tons—is held in deep organic soils and peats with slow rates of decomposition (Reid and Lovejoy 2022). So maintaining soil carbon storage and facilitating additional sequestration may be the optimal approach to managing such forests. Where harvesting takes place, it is important that forest managers emphasize maintaining continuous forest cover, avoiding exposure of carbon-rich soils to direct solar insolation and the major release of carbon dioxide and methane that would result (Bradshaw et al. 2009). In temperate forests, the great diversity of forest types may require extensive research and local experimentation to devise customized forest management practices and standards that optimize above-ground and below-ground carbon storage (Bossio et al. 2020; Luyssaert et al. 2008). The Forest Stewards Guild supports and actively participates in such research and experimentation.

Optimizing forest carbon management in some forests may require practices designed to reduce the risks and impacts of fire (Hurteau et al. 2008). In tropical forests, most forest burning does not relate to forestry so much as to the conversion of forest land to cropland and pasture, which is responsible for one-fifth of all human-caused greenhouse gas emissions globally (Pauchari and Reisinger 2007). In temperate and boreal forests, the increasing frequency and extent of wildfires has in some regions negated the carbon-absorbing function of forests, turning the forests themselves from carbon sinks into net *sources* of greenhouse gases (Goodale et al. 2002). Forest management practices that reduce fire risk through mechanical thinning, managed fire, and strategic harvesting can help reduce the inadvertent loss of stored forest carbon—and the capacity of forests to continue storing carbon in future years—to wildfires. The Forest Stewards Guild supports forest practices and policies aimed at reducing wildfire risks, and at limiting the frequency, extent, and intensity of wildfires that will continue to occur.

Throughout human history, forests have been called upon for different uses and values, for energy, for shelter, and for ecosystem services that now include ensuring that the world's climate remains suitable for humanity and the diversity of other species. The Forest Stewards Guild supports the continued development, testing, and application of forest management practices across the full spectrum of management intensities—from forest plantations to protected areas—that help address new and emerging challenges in forest conservation, climate change resilience, and environmental sustainability.

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