Association for Tropical Biology and Conservation

RESOLUTION PROMOTING SUSTAINABLE FIRE MANAGEMENT IN CERRADO

The Association for Tropical Biology and Conservation, the world's largest scientific organization devoted to the study, protection, and sustainable use of tropical ecosystems, notes that:

- The Cerrado is the most biologically diverse savanna region of the world, but Cerrado ecosystems are seriously threatened by rapidly expanding agriculture. Conserving this unique biodiversity is increasingly dependent upon effective management of protected areas.

- Cerrado vegetation has an evolutionary history of frequent fire. In contrast to fire-sensitive biomes like the Amazon and the Brazilian Atlantic Forest, Cerrado is fire-adapted, with most of its species depending on the open habitats that are maintained by fire, or are even directly dependent on fire. Most Cerrado biodiversity is associated with the herbaceous layer, which harbours an exceptionally rich flora and associated fauna adapted to high-light conditions.

- Fires commonly occur every 2-5 years in other mesic savannas of the world, where fire is valued as a key tool for conservation management. Poor fire management on private land has resulted in the Brazilian government adopting a widespread policy of fire suppression, including in Cerrado protected areas. The new Forest Law (May 2012) is an important step towards redressing this, but a widespread culture of fire suppression remains.

- Fire suppression over long periods leads to the gradual loss of the herbaceous layer due to a dramatic increase in tree cover. Widespread fire suppression therefore puts Cerrado biodiversity at serious risk.

- Fire suppression also increases the risk of uncontrollable wildfires. Without prescribed burning, most fires occur under more extreme fire conditions late in the dry season. Combined with increased woody fuel loads due to fire suppression, these fires can be of extremely high intensity, and cause serious damage to adjacent fire-sensitive habitats such as gallery forests.

- It is likely that a range of fire regimes is required for sustaining Cerrado biodiversity in the protected area network. However, fire suppression policies make it difficult for researchers to investigate which fire regimes are most appropriate.

The Association for Tropical Biology and Conservation therefore resolves to urge the Brazilian Government to join with national and international researchers in:

1. Promoting awareness by all levels of government about the importance of fire management in maintaining Cerrado biodiversity.
2. Establishing a system of long-term experimental fire sites, aimed at determining the most appropriate fire management practices for maintaining Cerrado biodiversity.
3. Forming a working group of Cerrado ecologists to oversee the system of fire sites, and to provide advice on Cerrado management to policy makers.