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Pollen Evidence of Maize Cultivation 2700 B.P. at La Selva Biological Station, Costa Rica¹

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AS MORE AND MORE FORESTS ARE CLEARED in the Latin American tropics, there is a tendency to view remaining forests as particularly special examples of wild nature—old, stable, and unaffected by past human activity. This perception, however, may be inaccurate. A growing body of evidence indicates that today's "ever-wet" rain forests have seen major droughts, and that warm lowland forests have been significantly cooled; from sea level to mountain peaks, "pristine" forests have been cut and burned. Prehistoric human disturbance and shifts in climate undoubtedly have affected past forest communities, and today's forests may bear some imprints of these earlier influences. Thus it becomes important for modern ecological research to understand the long-term history of research sites (Hamburg & Sanford 1986). Unraveling long-term forest history and its possible links to modern patterns and processes may be particularly important at well established research stations that are the sources of large numbers of publications in tropical ecology (Clark 1985).

Here we add to evidence of the long-term human history of La Selva Biological Station in Costa Rica by reporting pollen evidence of maize cultivation much earlier than previously indicated. Located in the rainy Atlantic lowlands (10°26'N, 83°59'W, 30–150 m elev.), La Selva is a premier site for tropical ecological research (McDade *et al.* 1994). Mature rain forests at La Selva have been described as "pristine" or "virgin" (Frankie *et al.* 1974, Hartshorn 1983), but charcoal fragments and pollen grains in soils and sediments show that both mature and secondary forests at the research station occupy lands that were burned and cultivated by prehistoric inhabitants (Horn & Sanford 1992; Kennedy & Horn 1997; Kennedy 1998; S. Horn & R. Sanford, pers. obs.). Climate fluctuations also may have affected La Selva's

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