

**Plant accumulations along the Itanhaém River Basin, southern coast of São Paulo State, Brazil**

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**ABSTRACT**

Examination of the mechanisms involved in the construction of present-day vegetative deposits along coastal waterways has made it possible to establish depositional patterns that can be compared with those found in similar environments in geologic time. These patterns include not only the composition and transport of the debris but also an estimation of the time involved in its deposition. Six sites with active deposits of plant macrodebris in the coastal basin of the Itanhaém River, São Paulo State, Brazil, were used in the study. In the central portion of the basin, the interior coastal plain is covered with restinga forest (dense, wet tropical forest of low altitudes), while the lower portion consists of mangrove swamps. The coast reflects anthropogenic intervention, and only a few scattered remnants of precolonization dune vegetation remain. The results after three years of study suggest that the accumulation of plant macrodebris in the middle and lower portions of the basin is parautochthonous, since only the leaves of genera typical of the restinga forest and mangrove swamp, respectively, were found. Along the coast the accumulations involved a mixture of parautochthonous and allochthonous elements. On the levee of the Branco River and within the mangrove swamp, deposition was slow, and many of the elements decayed quickly; such accumulations show little potential for preservation and eventual fossilization. A different site, however, reveals the rapid deposition of thick layers of plant debris, presumably associated with storms, and these accumulations are preserved for long periods, constituting good candidates for possible fossilization.