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## **IARA, A NEW GENUS OF AQUATIC ANGIOSPERM FROM THE CRATO PALAEOFLORA (LOWER CRETACEOUS, SANTANA FORMATION, ARARIPE BASIN, NORTHEASTERN BRAZIL)**

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The new genus *Iara*, an aquatic angiosperm from the Brazilian palaeoequatorial region of northern Gondwana belonging to the Crato Member, is proposed. This taxon adds a new source of information on the ancient aquatic angiosperms morphology. It also contributes to improve the knowledge of early angiosperms taxonomic diversity, since the West Gondwana could be the spreading center of the first flowering plants. The Crato Member consists of organic rich mudstones and laminated micritic plattenkalk limestones of shallow lacustrine origin with marine influence. The Late Aptian/ Early Albian age has been suggested for that unit. The plant fossils, recovered from the lower part of the plattenkalk limestone succession, are preserved as impressions. Five incomplete specimens have been studied, with morphological features well preserved but without anatomical details. They show a cylindrical and articulate stalk, bearing parallel longitudinal grooves and a central vascular bundle. Four to seven elongated vegetative branches emerge whorly from the stalk apical portion. These leaves sometimes are laminar structures or bear a cylinder and a slender expansion that brusquely contracts in the distal portion finishing in a thin elongated structure. One of specimens owns three slender flexible striated branches that emerge from the stalk intermediary node and ending in a fusiform structure. The flexible branches would represent the fertile structures attached to the axis. The cylindrical, filamentous and flexible morphology of the branches and the whorled organization would indicate aquatic habit (hydrophyte). All of the described features lead to propose the new genus, *Iara*. The plant would live partly submersed in the water column in a shallow lacustrine environment, maybe with saline waters, partly submersed in the water column, a palaeoenvironment already suggested for the Crato Member. The combination of these features is partly found today in extant and not related aquatic herbaceous taxa. The plant fossils have similar characters with some families of the Monocots, particularly with Potamogetonaceae, Cymodoceaceae and Ruppiaceae (such as articulate cylindrical stem with whorled, elongate, flexible and parallel-veined leaves, floating pedunculate spikes), with the Podostemaceae family/ Eudicot (such as floating, pedunculate, spiciform and spatheate inflorescence) and also with the green algae Characeae family (such as grooved stem, although the possible vascular arrangement of the stele and the pattern venation leaves do not allow greater comparison). Therefore, these plant fossils from the Crato palaeoflora may represent extinct members of a putative lineage of aquatic flowering plants, not related to extant monocots or dicots (convergence habit). Contribution to FAPESP Project: 03/09407-4.