

Abstract – Herein, we describe and name a new fossil genus and species *Aquaephyllum auriculata*, and report on the presence of *Pandaniidites* pollen grains, from the La Colonia Formation (Maastrichtian, Upper Cretaceous), Patagonia, Argentina. The new fossil taxon is based on leaf impressions and is morphologically similar to members of the family Araceae, subfamily Lemnoideae. The most important morphological characters comprise the adaxial venation with at least ten primary veins, the crenate margin, and the presence of an auricle. Phylogenetic analysis places the new taxon in a close relationship with the Lemnoideae clade, which also includes the fossils *Limnobiophyllum scutatum* and *Cobbania corrugata*, and the extant *Pistia stratiotes*. The fossils from the Maastrichtian La Colonia Fm, *Aquaephyllum auriculata* and *Pandaniidites*, are the first fossil record of lemnaeous leaves and the oldest record for pollen of the family Araceae for the Southern Hemisphere. The inclusion of *Aquaephyllum* and *Pandaniidites* within a phylogenetic analysis confirms a previously suggested hypothesis on the existence of a close relationship between extant *Pistia*, and the fossils *Limnobiophyllum* and *Cobbania*.