Abstract
Botrychiopsis has been considered an important floristic element of Westphalian/Artinskian associations of the Paraná Basin. The occurrence of Botrychiopsis in roof-shales of the Rio Bonito Formation in Southern Paraná Basin (Quitéria area), supported by the identification of Botrychiopsis valida, enlarges the genus biochron. Consequently, the stratigraphic hierarchy for Botrychiopsis plantiana and Botrychiopsis valida was defined for the Paraná Basin. Although it is climatically controlled and related to a deglaciation icehouse stage, stratigraphic distribution of the genus presents a substantial climate tolerance, from cold/cool to warm/temperate conditions. A new phytostratigraphic zonation is proposed for the southern portion of the basin that includes the Botrychiopsis Zone (Asselian/Kungurian), which is subdivided into the Botrychiopsis plantiana (Asselian/Artinskian) and Botrychiopsis valida (Late Artinskian/Kungurian) subzones.

Keywords
Botrychiopsis, biostratigraphy, Paraná Basin, Permian, palaeoclimatology, Gondwana.