Abstract

The genus Lygodium Sw. is one of the few climbing ferns in the world. The spores of L. venustum Sw. and L. volubile Sw. were studied using light, scanning, and transmission electron microscopy. This work is based on herbarium material. The spores are trilette, triangular, with straight to convex sides in polar view. The equatorial diameter is 72-104 m, and the polar diameter is 64-84 m. The ornamentation in L. venustum is verrucate-tuberculate while in L. volubile, it is verrucate-tuberculate in the proximal face but with a few ridges on the distal face, where a microornamentation constituted by verrucae and tubercles is observed. An equatorial ridge is also present. The exospore is two-layered; in L. venustum, it is smooth in contrast with the ornamented exospore of L. volubile. The perispore of the two species analyzed is similar. This wall is four-layered with particular elements arranged radially in the middle layer. On the spores surface of both species, few spheroids are observed. The results introduced in the current study may be useful for the systematics of the genus as well as for phylogenetic purposes.

Keywords

Lygodiaceae, Lygodium, morphology, spores, ultrastructure.