Micromorphological characteristics of labellum and spur belonging to some *Orchis* and related genera

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A detailed morphometrical and micromorphological analysis of the labellum and spur were carried out using both light and scanning electron microscopy on species belonging to *Orchis* and related genera (*Anacamptis*, and *Neotinea*) of Orchidaceae in Turkey to identify diagnostic characteristics and to confirm whether there are features that are related to their pollination strategy. In the samples, various epidermal features such as shape and length of epidermal cell or papillary structures and surface ornamentation were identified on the adaxial surface of the spur and the labellum. In many species, characteristically shaped papillae were concentrated at the base part close to the gynostemium or the distal part of the labellum. Despite the abundance on the labellum surface in *Anacamptis laxiflora*, there was no papillary structure on all surfaces of the spur. In *Neotinea tridentata*, both labellum and spur surface were covered with convex cell, having no papillae. Furthermore, the labellum surface striation varied among the orchid genera. Our data enable us to distinguish between species and show congruence with the present circumscription of these related genera.

This research was funded by a grant from the Scientific and Technological Research Council of Turkey (114Z702).