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Online information retrieval tool (OIRT)
for pollen morphological studies
of some local plant species of
Amravati, Maharashtra, India

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Abstract:

Pollen morphological studies of fifteen different plant species representing different families from the local flora of Amravati were undertaken. Morphological characters were studied using Light Microscope (LM) and Scanning Electron Microscope (SEM). To store the morphological features online information retrieval tool (OIRT) was developed. The diversified characters of the sporomorphs provide an important basis for generic and specific delimitations. An attempt has been made to see how far Palynology helps in taxonomy and throws light on the evolutionary trends. Pollen morphology is widely used in taxonomic treatments particularly with differences in exine structure and aperture forms. The OIRT stores these taxonomical characters in the form of digital data as well as the morphological images of the pollen grains. The report generated using this online tool will be helpful to researchers working in the field of interdisciplinary sciences, taxonomist and modern palynologists to share the information for future studies. The demo of OIRT is available in the form of a web application which can be used as digital database to store and retrieve large number of pollen morphological data.

Keywords:

Pollen grains, pollen morphology, OIRT