

A New Rust Disease on *Calanthe* from Darjeeling Hill, India

ABSTRACT : During routine monitoring of orchid diseases, yellow rust was recorded on leaves of *Calanthe trulliformis* in 2004. The disease on *Calanthe trulliformis* appeared as powdery mass of small, pinhead yellow colour dots on the lower surfaces of young leaves, which ultimately enlarged into larger pustules (0.1-0.5 X 0.1 -1 cm). Rust pustules were also visible on leaf petioles, flower stalks, and sepals and petals of opened and unopened flowers. The fungus produced numerous urediospores on the pustules. The urediospores were small, thin walled, finely echinulate, orange to yellow, ovate to spherical measuring 15.1-20.8 X 25.7-31.4 μm . Transverse sections of the pustules were made from rust infected leaves and frequently observed under microscope but telia and teliospores were not detected till now. Subsequently the rust were recorded on *C. plantaginea* (50 %), *C. biloba* (16.7%) and *C. discolor* (1.5%). The fungus appeared in shady places with mild temperature and high rainfall during June to August in the hills of Darjeeling. The fungus was identified as *Uredo* sp. This seems to be the first record of rust on species of *Calanthe* in the world.