NUS National University of Singapore | Department of Biological Sciences Faculty of Science

ON-SITE BIOLOGY COLLOQUIUM

Friday, 13 Mar 2026 | 4 pm | S3 05-02 Conference Room 1

Hosted by Associate Prof Sanjay Swarup

Map to Block S3

Native Orchid Conservation and Orchid hybridization: Experiences from the Singapore Botanic Gardens

By **Yam Tim Wing**

Formerly Principal Researcher of Singapore Botanic Gardens

Drawing on more than 30 years of work at the Singapore Botanic Gardens, this talk presents an overview of applied orchid conservation and breeding programmes, with emphasis on propagation biology, species recovery, and urban reintroduction strategies. I will share how threatened orchid species were propagated, established in nurseries, and gradually reintroduced into parks, nature areas, and roadside landscapes across the island—resulting in more than 40,000 plants from over 60 species being planted at approximately 40 locations nationwide. The presentation integrates field ecology, propagation science, and landscape implementation, offering a case study in translating botanical research into practical conservation outcomes within a highly urbanised tropical environment. It aims to highlight methodological challenges, research opportunities, and transferable lessons for plant conservation, restoration ecology, and urban biodiversity management.

In parallel, I will discuss the Gardens' breeding programme, covering hybrid development, polyploid induction, intergeneric experimentation, and the creation of new genera, as part of the broader work carried out at the Gardens. Many resulting hybrids are used in the VIP orchid-naming programme, registered with England's Royal Horticultural Society, displayed at the National Orchid Garden, and awarded at local and international shows.

About the Speaker

Dr. Yam Tim Wing received his BSc degree from University of Southampton, UK, MSc degree from University of Cambridge, UK, PhD degree from University of Hong Kong and Post-Doctoral with Professor Joe Arditti from University of California, Irvine, USA. He served as a Principal Researcher at the Singapore Botanic Gardens, where he contributed to efforts to conserve Singapore's native orchids through propagation and reintroduction into urban and natural environments. He also spent many years working in orchid hybridization, and many of the resulting hybrids are used in the VIP orchid-naming programme and are registered by the Botanic Gardens with the Royal Horticultural Society in England; they are displayed at the National Orchid Garden. Some of these hybrids have received recognition at local and international shows. He is the author of Orchids of the Singapore Botanic Gardens and Native Orchids of Singapore – Identification, Diversity and Conservation, and a co-author of Biology of Vanda Miss Joaquim and the third edition of Micropropagation of Orchids. Now happily retired, he continues to enjoy orchids and spending time in nature, both in Singapore and during his travels.