PROFILE

Small Is Beautiful – How A Muscologist Was Born

Benito Tan with a visiting scientist at the Bukit Timah Nature Reserve

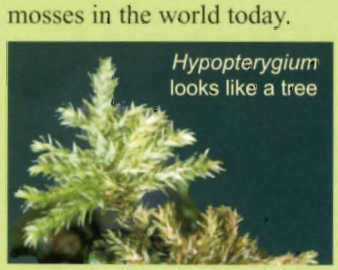
Associate Professor Benito Tan is a muscologist by training, but he seldom introduces himself as such. "I used to, but some people thought I am a specialist on the city affairs of Moscow," he says, with a laugh. A Chinese Filipino, Benito, who joined the university in 1998, studies mosses, plants so tiny that most people do not bother to give a second look. As one of the few experts on East Asiatic mosses, he has left his footprints throughout Asia over the last 20 years while collecting these ancient plants. In his innumerable moss-hunting trips in Asia, the closest he came to losing his life was four years ago, when his boat capsized on a fast-flowing glacier-fed river in Siberia. Luckily, he managed to swim to shore. Not that the experience has deterred him. In June, he will lead an international team to go moss-hunting once again – to the Altai Mountain Range in Mongolia under a National Geographic Society grant.

Benito came to specialize in this obscure field by chance. His parents wanted him to be a medical doctor. "But I pass out when I see blood!" he says. Having nurtured a love for nature since he was young, he decided to study plants "since they don't bleed if they are cut into pieces." His first love was for ferns, but after graduating with a M.Sc. from the University of the Philippines in 1974, he decided to pursue his doctorate in the study of mosses as they were then unknown to many in the Philippines. After obtaining his doctorate from the University of British Columbia, he taught at the University of Philippines for eight years. In 1988, he decided to plunge into research full-time. He joined the New York Botanical Garden as a curatorial assistant for two years. Then, for seven years, he conducted the moss research in preparation for the Flora of China mega-project at the Farlow Herbarium at Harvard University. But four years ago, the desire to teach re-surfaced and he took up a teaching position at NUS. In his first two years here, his warmth and patience have won over the students who voted him for the meritorious teaching award twice. In spite of his many teaching and administrative duties, he still finds time to devote to research. "Otherwise, I will have nothing new to tell the students!" he said.

Dawsonia is a giant among mosses, growing to more than 30 cm in height

What are Mosses?

Mosses are considered the simplest and most ancient group of land plants, but they are no less important. Together with other bryophytes, they control moisture levels in the forests and protect the topsoil from being washed away. They are the food sources and nesting sites of forest birds, insects, and the large grazing animals. For centuries, they have been used for medicinal purposes in China. They had been used for pillow fill in medieval times in northern Europe and for decorative purposes by mountain tribes in Southeast Asia. Except for the marine environments, they are found everywhere, from the harsh winterland in Alaska to the dry deserts of Israel and Mongolia. There are about 14,000 species of mosses in the world today.



Hypopterygium looks like a tree