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Why study endophytic fungi? The case of Chinese mesona (*Platostoma palustre*)

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Purpose: The herbaceous plant Chinese mesona (*Platostoma palustre*) is the source for the production of herbal tea and grass jelly as regional specialty in Southeast Asia and Taiwan. One aim was to address fungal diversity associated with this plant, because hitherto no fungal species has been recorded for this crop. Another aim of this presentation is to exemplify general advantages and limitations of such kinds of biodiversity approaches.

Methods: Endophytic fungi were isolated from surface-sterilized healthy roots, stems, and leaves and identified by ITS and protein gene sequences and morphology.

Results: Over 150 isolates were obtained from 15 healthy plants of *P. palustre*. The most common species were in genera comprising many important plant pathogens. An infection experiment with an endophytic strain confirmed latent pathogenicity. Observation of leaf disease suggested pathogenicity of another fungus which was also isolated as endophyte.

Conclusions: In spite of overall species similarity among fungi commonly isolated in the numerous endophyte studies so far, our example indicates that this approach may contribute data to plant-fungus species ratio estimates and allow some risk assessment of the fungus-plant association in agriculture. This kind of study, however, does not contribute to deeper fundamental understanding of plant-endophyte interaction.