Report of the funded project: Molecular systematics and evolutionary and life histories of selected perithecial ascomycete genera.

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The financial support obtained was fully used to support my field experiments during the expedition to New Zealand (March–May 2005) and to cover partial traveling expenses of Mr. Jiří Čermák, who took responsibility for the whole technical and logistic organization. The aim of this particular part of the project was collecting and isolation of species of the genus *Chaetosphaeria* and related phialidic dematiaceous hyphomycetes and the genera *Ceratostomella* and *Ceratosphaeria* and other lignicolous nonstromatic pyrenomycetes in their natural environments.

Intensive collecting was done on both islands of New Zealand. In South Island the following National and Forest parks were visited: Peel FP, Catlins Rain Coast FP, Fiordland NP, Mount Aspiring NP, Mount Cook NP, Westland NP, Arthur´s Pass NP and Victoria FP including some other smaller forested zones with natural plant structure and composition. About 20 localities in these parks were explored; in the majority of them the dominant vascular plants were: *Nothofagus*, *Podocarpus*, *Dacryodes* or *Dacrycarpus*. In North Island several other forested areas were visited for collecting: i.e. Whaitakere Ranges, Coromandel Forest on Coromandel Penninsula and Tongariro NP.

During collecting I focused on decaying woody plant and herbaceous material lying on the ground, like stems, fallen trunks with or without bark, branches, twigs, stumps and fruits or cones, decayed leaves and remnants of twigs and bark, which are parts of the litter; also on freshly died twigs still attached to living trees or shrubs. Soil samples were also collected.

Periodically, usually once in 5–6 days, the collected material was sorted out in places that had access to electricity to use a hot-air drier and a dissecting scope. The material was sorted under the dissecting scope; each specimen was divided into three parts. The major part of a collection was dried with hot air and then stored and sealed in plastic bags with a zip mechanism. Two other parts of the collection were always gently air-dried and used for isolation onto agar media. For this purpose I carried with me Petri dishes 6 mm diam with potato-carrot agar (with added streptomycin), on which I did the first isolations. In 2–3 days the plates were checked under the scope again for germination and possible contamination and the starting mycelium was transferred with the aid of a sterile needle into three parallel sets of cryovials filled with slant agar. These cryovials were later checked periodically for growth and contamination of mycelium. Other isolations or the ones that were not successful were made later in the home laboratory with the aid of a monospore isolator.

During the expedition to New Zealand in 2005 ca. 820 collections and ca. 150 isolates were made, all currently under study. The collected material was labeled with proper locality and substratum information and will serve for further study. After identification, herbarium material will be sent to the PDD herbarium in Auckland, New Zealand. If the material is rich enough, a duplicate will be preserved in PRA herbarium, Institute of Botany, Průhonice. All isolates will be sent to ICMP culture collection in Auckland; a set of type cultures (if any new species will be found) will be also sent to CBS culture collection in Utrecht, The Netherlands.

The expedition New Zealand 2005 ended in Landcare Research, Auckland, where I presented a talk, which was divided into two parts: 1) Evolution and identification of

Chaetosphaeria and related phialidic dematiaceous hyphomycetes; 2) Fungal postcard from New Zealand: New discoveries of ascomycetes and hyphomycetes.

The material obtained during this collecting trip will be a source for my future studies and publications. Species of the genus *Chaetosphaeria* that were successfully isolated will be immediately used for molecular analysis and for the long-term work on "Monograph of *Chaetosphaeria*". I would like to thank to Studienstiftung für Mykologie for its support and will acknowledge it in any publication that will be based on this material.

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