

## Hansjörg Eichler Research Fund 1997 awards

**Recipient:** Marco Duretto [MEL]

**Topic:** Seed testa structure and leaf anatomy of tribes Boronieae and Zanthoxyleae (Rutaceae subfamily Rutoideae)

**Value** \$500.00 [expected to be exhausted by December 1998]

### Report:

Using The Hansjörg Eichler Research Fund 1997 enabled me to prepare and study seed and leaf material of a large number of genera, most notably recent collections from South Africa, New Caledonia and South Australia. This study complimented my current studies on *Boronia* (tropical and east coast taxa). The main aim of the project was to survey a large and diverse group of taxa to ascertain the usefulness of seed morphology and leaf anatomy in the systematics of Rutaceae subfamily Rutoideae. The data from this study will be included in a long term project which aims to test the 'naturalness' of the current infrafamilial classification of Rutaceae.

Seed surfaces and leaf anatomy of representatives of most species groups in *Boronia* and representatives of other genera have been examined (see below). Presently I am scoring the data to be included in a cladistic analysis. One interesting result is that many of the New Caledonian taxa have what appears to be very derived leaf anatomy.

### Material from one or more species of the following genera were studied:

**Leaf anatomy** (most material embedded and sectioned though many species still to be sectioned)

Australian: *Acronychia*, *Asterolasea*, *Boronia* (several WA and SA taxa), *Correa*, *Crowea*, *Diplolaena*, *Eriostemon*, *Geijera*, *Halfordia*, *Medicosma*, *Nematolepis*, *Phebalium*, *Philothea*, *Zieria*

New Caledonia: *Boronella*, *Comptonella*, *Myrtopsis*, *Zieridium*

South African [embedded only]: *Adenandra*, *Agathosma*, *Calodendrum*, *Coleonema*, *Diosma*, *Tecla*

### Scanning Electron microscopy of seed surfaces

Australia: *Asterolasia*, *Boronia* (several WA and SA taxa), *Microcybe*, *Phebalium*, *Philothea*

New Caledonia: *Boronella*, *Myrtopsis*