## Discaria toumatou (Rhamnaceae) and Radiola linoides (Linaceae) identified

#### **Rhys Gardner**

These two plants have almost nothing in common, one being a brutal native shrub and the other a minute new adventive; but the combination of luck and persistence that went into identifying pieces of each makes a nice illustration of the rule "It doesna matter, laddie, how you identify a plant as long as you get it right" (Scottish botanist Sir W. W. Wright to his students; Davis & Heywood 1963: 269).

### Discaria toumatou

I was given a small, juvenile (non-spiny) bit of this (Fig. 1) by an ecological consultant working near Molesworth Station. The standard "prime characters" of leaf arrangement (opposite), condition of margin (sparsely serrate), and presence of stipules (intrapetiolar, bifid), certainly cut out a lot of families, but not nearly enough. The two introductory keys of Allan (1960: 115-34) were not especially helpful either – for example, to get to *Discaria* in the key to the genera one must have a specimen with spines.

Then I noticed among the other Molesworth samples a piece of adult *D. toumatou.* Persisting at the base of its spines were those very distinctive stipules. Our Flora-writers include presence of stipules as a family character for the Rhamnaceae but give no more information in their species-descriptions. However, a reading of the footnotes to Allan (1960: 418) brought up the classic article by Cockayne (1900), with its detailed "architectural" account of the early growth of the *D. toumatou* shoot. I do not quote it here, because the *Transactions of the New Zealand Institute* are now available online, but would just say it is exactly the sort of thing a new "Flora I" should contain.

## Radiola linoides

Dry material of this was sent to AK by Lisa Forester, who had found the plant last year in the Kaimaumau Bog, Aupouri (AK 329601). The shoots, only a few cm high, again revealed just enough (opposite leaves, completely glabrous, margins entire, no stipules, no glands) to exclude many familes, but not enough. A bad guess that it belonged to the Caryophyllaceae resulted in it lying around for a few weeks, failing to find a place in one after another of the world's Floras. Eventually, when I got down to properly soaking out and examining the tiny flowers, I realized that their four fused sepals, each tripartite, took the plant out of that family (Fig. 2).





Fig. 1. *Discaria toumatou*. Portion of young stem, stipules shown dark; detached stipule with indication of cross-section.

Fig. 2. *Radiola linoides.* A, whole plant. B, part of flowering stem. C, flower, somewhat spread out. From Ross-Craig (1952) pl. 24.

At this stage a comprehensive key, such as that of Geesink et al. (1981), could have been tried, all the while hoping it would not be necessary to cross the usual *pons asinorum* of such works, the determining of the placentation of the ovary. An easier course would have been to try the entirely vegetative keys of Poland and Clement (2009) – but this book was not to hand, and anyway I see now that I would have given the wrong answer at one couplet and would have again landed out of sorts among the chickweeds.

So now I admit it: I asked a certain search-engine to scour the Internet for "tiny annual bog plant". On the first page of sites, among offers of plants and plant-products for sale, was one with a drawing of *Radiola linoides*, showing its distinctive sepals. The identification was confirmed by comparison with European specimens in AK , some of which I might have put away myself in years gone by.

#### References

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# The 21<sup>st</sup> New Zealand Fungal Foray, Masterton, 2007

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#### Introduction

The 21<sup>st</sup> annual Fungal Foray was held at Mawley Park Motor Camp, Masterton, 5-12 May 2007. There were 47 professional and amateur mycologists staying for various durations during the week (Fig.1).

As always, each day's foraying involved collecting in the field and then identifying our finds back at the Field Centre, labeling them and displaying them on tables set aside for the purpose. Many of the collections were then dried to take back to the Landcare Research herbarium in Auckland (PDD). I worked with Shaun Pennycook to record information on identified species directly onto computer. Additionally, photographs were taken of various collections. This process is part of the FUNNZ (Fungal Network of New Zealand) tracking system, instituted for the first time at the 20<sup>th</sup> Fungal Foray held in Westport in 2006.

Some highlights from the foray included finding an introduced *Rhodocybe* sp. (found under oak and poplar), *Cystolepiota hetieri, Hyphodontia alutaria, Scytinostromella heterogena*, and *Hamatocanthoscypha ocellata*, all new records for New Zealand; and two records of fungi currently classed as Nationally Critical (*Russula papakaiensis, Chalciporis aurantiacus*). Data was added also for



Fig. 1. 21<sup>st</sup> Fungal Foray group photo. FUNNZ, May 2007.

species where only one record was known in New Zealand or it was known only from the type specimen.

The 21<sup>st</sup> NZ Fungal Foray captured information on 708 collections representing 387 taxa, and 588 collections were added to the PDD national collection. Of these, 32 records had a current 'Data Deficient' status. Several species were added to the New Zealand list, or were so poorly known they were only represented by a single collection in PDD. By far the most records for individual sites came from Mt Holdsworth (289), due in no small part to the diligence of Di Batchelor.