

Illegal immigrants

Richard J. Fisk

35 Fair Close, Beccles, Suffolk, NR 34 9QR; richardjfish@waitrose.com

In the second edition of his Moss Flora of Britain and Ireland, Tony Smith describes some species that have been imported on tree ferns and are surviving in the 'wild'. When a day in the field was halted by heavy rain recently, I decided to call at an 'exotic' plant centre in Aldeburgh (Suffolk), which specialises in things like tree ferns, to see if I could find anything of interest. On two specimens of *Dicksonia antarctica* some 2m tall (£140) where small colonies of the moss *Leptotheca gaudichaudii* (Figure 1), which were in good condition and appeared to be growing actively. Mixed in one of these colonies were some thallii of a small *Metzgeria*. This was in poor condition and most cells were without chloroplasts. On the basis of numerous marginal hairs and the midrib bounded by two cells both dorsally and ventrally I decided this was *M. decipiens*, however I have since discovered that Grolle (2002) reduced this to synonymy with *M. furcata*. Even so it obviously came with the tree fern. A visit to a second centre revealed more *Leptotheca*, again on *D. antarctica*, and some stems of a pleurocarp that resembles *Rhynchostegium tenuifolium*, a common species in New Zealand and Australia. With the *Leptotheca* were a few stems of a small *Lophocolea*-like liverwort that could be *Chiloscyphus argutus*. It was in poor condition like the *Metzgeria* and obviously not growing. All of these plants were found on the lower part of the trunk of the tree ferns, where it was damp, and they were all under cover or sheltered in some way.

The manager at one of the centres was surprised at my finds, saying the tree ferns were subjected to a thorough fumigation and cleansing on entry

to the extent that some tree ferns themselves were killed. Indeed a batch of newly delivered plants showed no sign of bryophytes and the ones on which I found them had been in the centres for several months. The plants are imported mainly from Tasmania and Australia.

Leptotheca gaudichaudii would seem to be capable of surviving rough treatment and to grow in sheltered conditions. It will be interesting to see if the tree ferns on which I found it remain unsold after the winter, and if so whether the *Leptotheca* survives. It would also be interesting to find out who has bought large tree ferns and do the bryophytes survive in a garden environment.

If you fancy looking at something a bit different then visit your local 'exotic' plant centre and see what you can find.

Bibliography

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Figure 1. *Leptotheca gaudichaudii* from the trunk of *Dicksonia antarctica*. Photo: Richard Fisk.

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A chromosome number for *Ricciocarpos natans*

Martin F. Godfrey

6, Darnford Close, Parkside, Stafford, ST16 1LR; MartinandRosie@aol.com

Introduction

In her flora of the British liverworts Paton (1999) does not give a chromosome number for *Ricciocarpos natans* although Smith (1990) does quote a figure of $n = 9$ but without a source. The chance encounter with a large quantity of the species at Brown Moss, Shropshire, in the summer of 2006 gave an ideal opportunity to check the chromosome count.

Methods

In general the methods described by Newton (1989) were used. However, I find that I get much more consistent results if I stain fixed material for a substantial period prior to preparing the squash. I therefore modified her basic technique as follows:

- Place the fixed shoots in a few drops of acetorcein in a staining block, cover, and leave for 5 – 6 hours.

- Taking one shoot at a time, remove from the stain, rinse in 45% acetic acid and dissect out the growing tip in a drop of 45% acetic acid under the dissecting microscope. Note that the meristematic tissue will be less than 1mm across.
- Now proceed as described by Newton but substituting a drop of 45% acetic acid for the drop of stain described in her steps 4 to 6.

Results

Good clear mitotic figures were obtained giving a count of $n = 9$.

References

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