The Biology Curator

Title: Unique herbarium collections

Author(s): Rich, T. C. G.

Source: Rich, T. C. G. (2000). Unique herbarium collections. *The Biology Curator*, *Issue 19*, 38.

URL: http://www.natsca.org/article/832

Experienced bryologists will welcome this book, for it lays before them the views of one of today's most respected hepaticologists. They might dislike the innovative use of average cell dimensions, which, without ranges and/or standard deviations, are often unhelpful. Couplet 22 on p.265, for instance, fails to assist the reader in attempting to discriminate between non-fertile *Jungermannia hyalina* and *J. paroica* for precisely this reason. Nevertheless, although there are bryologists who might wish to debate points of taxonomic judgement, there will, I think, be universal gratitude to the author for the opportunity she has given them to assess their own opinions in a much wider context than formerly. It is a book that ought to be accessible in public libraries and in as many private ones as possible, for it contains an enormous wealth of information that will benefit aspiring and established bryologists alike. Mrs Paton has made a splendid contribution to bryology.

M.E. Newton, (School of Biological Sciences, University of Manchester)

Collections research

Unique herbarium collections

T C G Rich, Department of Biodiversity and Systematic Biology, National Museum & Gallery, Cardiff CF10 3NP

Herbarium specimens and their labels provide a huge amount of information, which is an invaluable research and voucher resource for botanists. Most collections consist of a mixture of specimens collected by individuals for their own herbaria, and duplicates collected for exchange with other botanists. Whilst researching records for a number of rare plants, I have found it necessary to visit or borrow material from a variety of herbaria to build up a reasonable picture of the species history and distribution in each site. This has also allowed me to quantify how many collections are unique to individual herbaria.

The numbers of exsiccatae represented in one, two, three, four or five or more herbaria are shown in Table 1 (an exsiccate is here defined as any unique combination of collector, date and locality).

This shows that on average, 83% of the specimens only occur in one collection and are not represented elsewhere.

Much of the duplicate material was distributed through the Botanical Exchange Club of the British Isles, and now resides in the larger herbaria. Many local herbaria have local collections which are not represented anywhere else. It is clear that all herbaria contain a high proportion if unique information.

Table 1. Numbers of exsiccate (herbarium species) represented in one, two, three, four or five or more herbaria for ten rare species investigated in detail. With the exception of *Pilularia* (data courtesy A.C. Jermy and A. Lockton), all data compiled by TCGR.

Species	Number of herbaria investigated	Number of different herbaria exsiccitae					
		1	2	3	4	5+	Total specimens
Ajuga pyramidalis	10	58 (85%)	6	2	1	1	68
Apsaragus prostratus	12	156 (84%)	16	7	2	4	185
Filago lutescens	20	142 (74%)	29	6	5	11	193
Filago pyramidata	20	165 (82%)	19	4	7	6	201
Fumaria purpurea	18	200 (84%)	22	6	5	6	239
Hieracium cambricum	5	20 (64%)	7	3	-	1	31
Hieracium linguans	7	15 (83%)	1	1	-	1	18
Pilularia globulifera	69	516 (87%)	57	6	5	8	592
Salvia pratensis	9	148 (98%)	2	1	-	-	151
Schoenoplectus triqueter	12	101 (83%)	12	6	-	2	121