

PLANT CONSERVATION — A ROLE FOR IPPS?

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I should like to explore some of the ways in which members of the IPPS might be able to help with our attempts to save rare plants that might otherwise be lost from cultivation in the British Isles.

Few people would challenge the view that we are, at present, in some danger of losing from our gardens a lot of the species and old cultivars that have been grown in them in the past. This is for a variety of reasons, but most of them hinge on the word 'economics'. Indeed, sufficient concern was being voiced about this for the Royal Horticultural Society to sponsor a conference on the subject in 1978, the Proceedings of which were reported in an article by C.D. Brickell in the April 1979 issue of "The Garden". The National Council for the Conservation of Plants and Gardens (NCCPG) was formed directly as a result of that Conference and since then has raised sufficient funds to be able to employ me, starting in March this year, to try to co-ordinate its work.

We have two main strategies by which to attack the problem. The first is to try to set up a network of local groups, initially on a county basis, consisting of keen plantsmen — both professional and amateur, and covering as wide as possible a range of horticultural interests — who can undertake the following tasks:

1. To collate information on the plants that are still commercially available in their area — to some extent it is true that, if we are to identify those plants that are rare, we must first know those that are not!

2. To search and list their local gardens, both to try to locate rare and unusual plants and to identify important gardens that are in some danger, in the hope that steps can be taken either to help them or to rescue their important plants before it is too late.

3. To help raise funds for the work of the NCCPG.

4. To look for particular plants that we already suspect to be rare in cultivation. Copies of a list giving some suggestions of these can be obtained from Wisley.

5. To collect information about — and perhaps grow — a particular plant or group of plants. This leads on to our other

main strategy, which is — as we identify good collections and sources for the more unusual plants — to attempt to establish a system of National Reference Collections whereby various other parties — be they botanic gardens, parks departments, The National Trust, private individuals, or the trade — agree to co-operate with the NCCPG in bringing together and maintaining as many species or cultivars as can still be found in cultivation, so that these can be properly named and evaluated and then maintained into the future. (Again a paper giving details of the Conditions of Acceptance the NCCPG is seeking to agree with interested parties is available from Wisley).

Until we have collected a lot more information from across the country, it is very difficult to be able to say with any objectivity exactly which plants are rare; but what we can do is to identify the factors that cause plants to be rare. Fashions change, and of course some plants are rare because they are not sufficiently attractive or gardenworthy. However, we would argue that many good plants are also rare for one or other of the following reasons: a few are difficult to grow without specialist care; some are recent introductions that have been, as yet, insufficiently distributed; some are tender and therefore easily lost; some are easily propagated but for some curious reason have been neglected, though they deserve to be more widely grown; and some we should be concerned about because they are rare plants in their wild state. However, undoubtedly one of the main things that helps make plants rare is a lack of commercial availability, because they are either difficult to propagate or uneconomic to maintain — maybe because they are slow to increase. This is one area in which we need your help.

There are plants for which demand at present certainly exceeds supply, e.g. double hepaticas, *Paeonia suffruticosa* 'Rock's Variety'; and many of the terrestrial orchids, which are slow to increase vegetatively and which we are as yet unable to raise from seed, e.g. *Cypripedium calceolus*. So it may be that for some plants we need to experiment with new methods of propagating them — or perhaps it would be safer to say, of making present knowledge more widely available! Surely, given better promotion, some of the following plants would sell widely — if only we could find ways of making the material available: *Schizophragma integrifolium*, capable of growing on a north-facing wall; *Dendromecon rigida*; *Carpenteria californica*; *Trillium grandiflorum* 'Plenum'; *Cardiocrinum giganteum* — and so I could go on, the list is endless! Also, how many of our unusual plants fail to set good seed simply because we only maintain one self-incompatible clone of them and they need a partner for cross-pollination?

I suspect that one of the reasons why certain plants have declined has been that their stocks have gradually accumulated viruses and other disease problems during their time in cultivation. It may well be that we need to turn to specialists with modern techniques to develop "clean" stocks which we can re-introduce to general circulation. Here I am thinking particularly of certain hardy plant groups such as primrose cultivars, Russell lupins, etc. The re-establishment of healthy stocks may be essential for the survival of such plants.

I mentioned our local groups earlier. We are trying to encourage them to help with the propagation and distribution of plants which might otherwise run the risk of being lost. For this purpose we are to hold a conference on propagation for them next month at Pershore College, to which I intend later today to invite official representatives from the IPPS. The NCCPG is very keen not to compete directly with the trade — indeed I am sure it would mostly warmly encourage any nurserymen prepared to add new items to their commercial list; the greatest safeguard for unusual plants is that they do remain commercially available. However, initially, we shall certainly encourage our local groups to propagate items that the Trade is unwilling or unable to produce. They will need your expertise and advice, whether as amateurs or professionals, and I sincerely hope that some of you may be prepared to join your local groups and share your knowledge with them.

ETIOLATION OF STOCK PLANTS FOR IMPROVED ROOTING OF CUTTINGS: I. OPPORTUNITIES SUGGESTED BY WORK WITH APPLE

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Abstract. The percentage rooting of leafy cuttings of the apple rootstock, M 9, was increased on average from 11% to 78% by prior etiolation. A period of exposure to light before taking pre-etiolated shoots as cuttings was essential and it was not necessary to continue to exclude light from the future rooting zone. The only limitation to the practical application of the technique appears to be that the conditions under the black polythene covers used to exclude light from the stock plants are favourable for *Botrytis* infection. Because complete darkness is not essential, this problem can probably be overcome by effective ventilation of the covers.

Terminology. There are many reports of stimulating adventitious rooting by various treatments involving the exclusion of light. Treatments range from excluding light from the base of the cutting during rooting, as is normal for cuttings