

IX. NOTES ON COLLECTING IMPATIENS (BALSAMINACEAE)

Because of their fleshy nature, thin leaves and membranous sepals and petals, Impatiens tend to make particularly poor herbarium specimens.

If dried while still attached to the leafy part of the plant the flowers generally become badly crumpled and brittle. In such a state their more important characters become unrecognisable, and it is rarely possible to restore them to any useful degree. The leaves may also become badly crushed especially if they are not pressed absolutely flat. The collectors' time may thus be completely wasted.

These notes are intended as guide lines and I would greatly appreciate, and indeed badly need, any material collected in the way(s) outlined below.

With the flowers the problem can be overcome by detaching one or two from each gathering in 'the field' and pressing them in soft tissue or blotting-type paper. The flower(s) can be pressed whole, placing them face downwards on the paper, or side-ways, depending on the species. This method is the quickest, but is mainly for species with rather flat flowers, e.g. I. platypetala. Alternatively, the flower parts can be separated, pressing each side by side. This is done by first removing the spur sepal and the lateral sepals, the latter of which are generally very small and easily overlooked. Next the dorsal petal can be detached followed by the two pairs of lateral united petals. Care should be taken to ensure that each lateral united pair remains in one piece. This leaves the stamens, ovary and pedicel which can be pressed as a single unit. The stamens in fact are dehiscent in one piece in Impatiens before the stigma ripens, so care should be taken to ensure the inclusion of at least one complete flower. This second method is far better in many ways because the shapes of the individual flower parts can be accurately preserved. One of two mature leaves pressed separately are often very useful.

I have found it best to press all the detached pieces in separate drying papers (i.e. not with the main part of the plant) to ensure that they are completely flat. Care has to be taken to number the tissue papers carefully with the same number as on the main specimen. Impatiens wilt rapidly once cut and should be pressed as soon as possible in 'the field'. They do not travel at all well in polythene bags.

Colour photographs, particularly of flowers in close up, are invaluable and I have also found that quick field sketches (included with the field notes) indicating the outline shape of the flowers very helpful when analysing dried specimens. These need only take one or two minutes to execute!

Field notes often omit any mention of flower colour, flower markings or population variability and these are really vital to any detailed study. Flower colour descriptions need not be long but should indicate any peculiar markings on the sepals and petals. Variation in plant height, size and colour within populations is also useful information to record.

Flowers preserved in alcohol are useful additions, though in my opinion not as useful in this family as carefully dissected and dried flowers.

Seeds are generally present when plants are in flower. Seed is only shortly viable in many species and should be flown home as soon as possible if it is to be germinated.

One aspect I am particularly keen to investigate is pollination. Any observations on pollinators observed in 'the field' would be extremely useful, particularly if the observations relate to a particular collection or species.

I know that it is more troublesome to collect for individuals in this way, but this genus is a particularly difficult one to study without specialised collecting. I would be very grateful indeed for any information concerning Impatiens, or indeed Balsaminaceae, in the wild and very pleased to receive any specimens which have been carefully preserved.

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THE HALL OF THE FOREST

For a long time I wondered what the term might be for the rather open space between the forest canopy and the ground. This space can be well defined in profile diagrams, and in most cases quite well in reality. No such term was found by me in literature; thereupon I consulted a number of distinguished experts on tropical rain forest. Some of them came up with a combination of words, but they agreed that there was not a single word to denote this space (unlike, e.g., canopy or chablis). Therefore let me here propose as a term: the forest hall.

M. Jacobs

BOOKS FROM KUALA LUMPUR

A recommendable bookstore is Kedaibuku, Box 1127, Kuala Lumpur, Malaysia. It is on the campus of the University of Malaya, is well-stocked for the biological sciences, and was found reliable in carrying out orders. One US\$ equals about 2 Mal\$.