

XII. THREE PLEAS TO COLLECTORS - IMPROVE YOUR FIELD DATA
What is needed are 'scientific collections'

In the course of years I have observed that there are three kinds of desiderata in scientific collecting which are often neglected or insufficiently attended to, and which I like to bring to general notice. They are the following:

1) Data on colour, scent, size, texture, structure, and habit on labels. I cannot sufficiently emphasize the fact that, most unfortunately, even in recent collections data on labels are often very meagre, and not infrequently limited to number, date and locality.

When labelling collections and writing data either on field-labels or collecting note-books, it must be stressed that during the laying-in of the specimens it costs very little time to note colour of flowers or fruits, their texture, and their scent, all characters which escape the observation when a monographer studies herbarium material. Even when very full descriptions of wood and bark are given, these sometimes important data are lacking.

The structure of flowers can generally be well examined in the herbarium, but texture withdraws often from observation and can only be guessed, especially with fleshy flowers which may shrivel extra in drying. Structure of fruit appears often very difficult to observe from dried material, as frequently the pericarp of fruits may have attained full size, but seeds may be very unripe and jelly-like: the contents of such fruits or seeds often shrivel so much in the herbarium that they then appear to be almost empty. With fresh material at hand it must in general not be very time-consuming to cut a fruit and seed to describe the structure in a concise way and add a small fragmentary sketch of it, indicating also size and colours. This is often of immense help to monographers working on herbarium material. After all it is a shame to collectors that monographers must later find out from preserved material that embryos or albumen is of the peculiar labyrinth type; collectors themselves should have been aware of this. Before laying-in specimens in the field, collectors should make a precursory investigation of the structure of the living material that they have fresh in their hands.

2) Material on liquid - Add part of this to the herbarium. Though it is laudable to preserve material of delicate or fleshy flowers and fruit or inflorescences in liquid, and make the notes indicated above, it appears that monographers often do not get these materials in liquid (spirits or formalin) in their hands, although their presence is generally noted on the labels. This material on liquid is seldom sent

to monographers overseas, as it requires great care to ship it. In this way the laudable effort of the collector does not have effective merit. Moreover, it must be considered that material on liquid is more liable to deterioration than herbarium material is, as such collections (files of bottles) require constant supervision, as liquid may evaporate rendering preserves worthless, bottles may break, etc. Therefore, in making spirit collections, it is advised to add always part of the same material also to the herbarium. In case of large fruits or fleshy fruits, make slices (lengthwise and transversal) for adding to the herbarium. These parts may shrink, but together with the field-notes on colour, texture and size, they are extremely important to the monographer.

The same holds for wood-samples and pieces of bark: thin slices of wood-samples may be instructive for the monographer. And the same holds for separate bags of fruit intended for carpological files: please add slices of the fruit to the herbarium!

3) Black-and-white photographs - Habitat, habit, close-ups of bark, stem-base, but especially of inflorescences, flowers and infructescences. In editing manuscripts of revisions in Flora Malesiana it appears that nowadays collectors make much less than in former times documentary photographs which can serve for publication, illustrating in close-ups the living plant in the tropics. Instead they make the cheap dias which are useless for this purpose. Therefore I want to plead for making more plant photographs in black-and-white of the quality required for eventual publication. For this 6 x 6 cm negatives of Rolleiflex and similar cameras are excellent and better than the small-size films.

Summary: The suggestions made above will doubtless require some more time in the field spent in studying the collections made during a day. It may even occur that one has to return somewhat earlier to camp if gatherings were successful. However, the time that the prime focus for exploring was to grab as much as one could lies behind us. What we need most is well-documented, rich, fertile collections for scientific pursuit.

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