

Editorial

Plant Explorers

The scientific study of plants has the normal formality of process that allows researchers to ask questions and hopefully obtain answers, although it is well known that most research provides more new questions than answers to the original problems. Possibly the least understood of plant research is the plant collector's art. Not only must the collector recognize potential, but he/she must have some sense of survivability in the specimen's new home. Add to that the need for a herbarium record of the material that may be difficult to preserve for the journey home, and it is soon apparent that the collector must be a critical observer of both taxonomy and ecology, a meticulous record keeper and have a robust and resilient body.

In this issue of **Davidsonia**, Dan Hinkley, an internationally known plantsman and collector extraordinaire, shares his experiences and thoughts about some of the hydrangeas that he has known. Dan's article is the second in what I hope will be an occasional series of collector and excursion reports written soon after the author returns from the field. Such papers can provide the opportunities to understand what goes on during field work as well as giving the reader a sense of the collector's motives and tastes. In Dan's case, the potential horticultural and ornamental values of wild material provide the foundation of expeditionary planning. Peter Wharton (Wharton, 2002) provided some arboricultural insight, which guided his collecting in southeast Asia. Complete field notes are rarely published and hence a substantial amount of anecdotal information gathered during a collecting trip never gets into the public domain.

This is not a new problem. Aboriginal shamans often kept field observations confidential, especially when they had discovered plant specimens with particularly effective medicinal powers. The modern day plant breeder recognises the genetic limits of plant selections and current threats to global diversity have led to a major international effort to collect

representative germplasm for use in new plant development. The current rebirth of so-called alternative medicine, which seems to coincide with an increased demand for more holistic medicine, brings us back towards the need for plant collectors to have a clear understanding of their collecting goals.

There are now portable instruments that allow some chemical screening of wild stock, if the chemical active principle is known. However, the first plant selection may have been made based upon the expert senses of the collector who detected the one specimen that was disease free or surviving under some abiotic stress. The true test of a particular property only comes when the collected material is cultivated and monitored for its perceived benefit, for example, large flowers, ease of propagation, tolerance to normally toxic soil, or above average concentrations of pharmacological principle. Once the plant is in cultivation, there is a tendency to forget the origins and the details that led the original collector to select the chosen plants over others in the same population. There is also a long standing and increasing trend to claim ownership of selected materials and to protect that ownership through intellectual property rights. Controversies surrounding both of these issues can be better understood if we have access to the collector's record and report. The original collection document can be held in an archive. The laboratory research undertaken using the samples can appear in the peer-reviewed literature. The gap between plant collections and laboratory can be partly closed by formal publication of expeditionary and other collector reports.

I hope that **Davidsonia** can meet at least some of this need.

References

- Wharton, Peter. 2002. Botanical Exploration on the Yunnan-Myanmar Border. *Davidsonia* 13: 7-10.