

The Potential of Private Collections

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Following the success of projects where professional botanists have co-operated with amateurs, such as for *The New Cactus Lexicon*, possibilities for future joint projects are outlined.

The benefits can be:

1. Living plant collections in private hands are maintained by a skilled, caring owner. An institution, however, can have difficulties maintaining standards of cultivation and data maintenance, particularly with a high turnover of staff and management. Amateurs often have good cultivation skills, particularly in relation to plants needing specialist care. The owner of a private collection is also more likely to know the plants and hence less likely to mix up the labels.
2. Amateur collections often include plants that are threatened in the wild. Seeds of these species may rarely be offered by nurseryman because they are not popular with the average collector. Even if they are, the gene pool from which commercial seed is collected is limited, or sometimes of dubious origin. Specialist collections can be a valuable source of propagations of rarely-cultivated species and information on how to grow them.

However, there are also problems:

1. Private collections rarely outlive their creators. When collections are split up and sold, any data about the plants are usually lost. No matter how threatened a plant might be in the wild, if it is ugly, or big, or unfashionable, it will probably be discarded.
2. Amateurs do not usually perceive institutions as reliable long-term custodians of their precious plants, so rarely donate their collections to them.
3. Trade regulations make it practically impossible for amateurs legally to introduce new genetic material into their collections from the wild. Blanket bans of seed exports do not serve the objectives of conservation. Without refreshing the gene pool, cultivated examples of a species will become less representative of its diversity, sometimes called the 'British Standard' problem, where all cultivated individuals come from a few stock plants in a single nursery.

Possible areas of co-operation:

1. The owners of documented collections can provide reliable plant tissue for DNA sequencing. The sources quoted in some recent studies give rise to doubt about the validity of the findings. There is much habitat-origin material in specialist private collections that could potentially be utilized in such studies.
2. The ease of sharing digital images enables amateurs to provide illustrations for journals and books.
3. Institutions have the opportunity to enrich their living collections with donations or exchanges.

Amateurs benefit too:

Mixing with botanists helps amateurs to understand the principles of subjects like taxonomy and nomenclature. It may even help reduce the number of superfluous new descriptions! We can get access to advice and institutional resources such as reserve collections, herbaria and libraries. We

can also learn more about the value of the plants in our collections, for instance the importance of keeping data and their conservation status.

Conservation:

The ex-situ conservation of threatened plants could well be best managed by a number of coordinating institutions around the world, each concentrating on maintaining and propagating one or a few genera appropriate to their expertise, climate and facilities. Private collections could participate in this process with a view to improving the long-term sustainability of the plants currently in private hands.