

## Orchid Conservation – Seed Banks

In order to protect the biodiversity of the planet, there are a number of projects to collect and store seeds of plants around the world. These endeavors are called **Seed Banks**. Orchids are only one of the families that are included in these ventures and are rather under-represented simply due to the fact that many orchid species are naturally found in poorer nations where funding for flora collection and maintenance is not a high priority.

The theory behind the idea is that seed of all kinds of species can be stored and then used at a later date to reintroduce the plants to their natural environment if they become extinct in the wild due to human intervention. There are few studies showing that orchid seeds will really store in commercially acceptable situations. Some seeds from some plants will germinate after a number of years, in many instances the plants are not healthy or vigorous. Much more work needs to be done before we can confidently say that this is a good option for the orchid family.

The current state according to several experts I spoke to involves gathering and disseminating as many orchid species seeds to as many growers as possible in order to keep a viable population with as much genetic diversity as possible alive. This will allow re-introduction to the wild should the species become extinct. This option is not as simple as simply gathering and storing the seeds since constant rotation of viable stock is required. It is a huge job to accept, test, store and then disseminate the hundreds of seeds.

There are orchid seed banks currently in operation in the United States, United Kingdom, South America (Bolivia), Australia and New Zealand.

**The Orchid Seedbank Project** (<http://members.cox.net/ahicks51/osp/>) is an Arizona-based clearinghouse for orchid species seed which provides seeds of several hundred species as well as flasks to growers.

**The Royal Botanic Garden** (<http://www.rbgkew.org.uk/msbp/>) is the home of the **Millenium Seed Bank Project**, an "...international collaborative plant conservation initiative." Orchids are only a small part of the initiative which is specifically geared at arid and semi-arid areas representing one-third of the earth's surface. A particularly interesting offering is the **Mini Seed Bank Kit** (<http://www.rbgkew.org.uk/shops/miniseedbank.html>) which allows hobbyists or schools to collect, dry and store their own seeds using technology developed by the gardens. It comes in personal and educational versions.

**The Orchid Specialist Group** (<http://go.to/orchid-specialist-group>), a part of the World Conservation Union, has up-to-date information on many orchid conservation initiatives including seed banks.

There is even a doomsday seed bank sponsored by the Global Crop Diversity Trust scenario which will be geared specifically to food species. It will be located in Norway on the island of Spitsbergen and is being built to in a sandstone mountain which will keep

the contents below freezing; reinforced concrete walls will be included to further protect the contents as well as airlocks and high security doors. If you are interested in further information, here is a link to an article from New Scientist magazine: [Doomsday Vault](http://www.newscientist.com/article.ns?id=mg18925343.700) (<http://www.newscientist.com/article.ns?id=mg18925343.700>) is the home of the **Millenium Seed Bank Project**



**Susan Taylor is BellaOnline's Orchid Editor**

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