



*B. incarnata*

Photo by Rekha Morris

# The American Begonia Society Save Our Species Newsletter

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Editor: Rekha Morris

## *Begonia albo-coccinea* Tom Keepin

In 2006 or 2007 I was given a very small plant of *B. albo-coccinea* by Rekha Morris. Rekha had documented *B. albo-coccinea* on a recent expedition to the Western Ghats of peninsular India. The limited seed collected produced three seedlings. Rekha gave one seedling to me, one to Joan Coulat in Sacramento, and has been growing the third one herself in a 10 gallon terrarium.

To be perfectly honest in the initial stages I was very disappointed in this plant's performance as it refused to grow. Rekha had given it to me in a little solo cup terrarium set up. It dried out a couple of times but still wouldn't grow.

A few months ago I got fed up and told it that I was going to pot it up, and it would have to grow or go. I removed it from its terrarium which by this time was dry. Mixing 2 tablespoons of dolomitic lime with the potting medium I planted it in a 4" round pot. I then watered it with a dilute solution of Peters 20-10-20, brought it back into the house, and put it back under the lights in my office so I could keep an eye on it. Well, I must say it appears to have gotten the message!

It is now growing very nicely. The largest of the peltate leaves are 5 inches across, and

there is an inflorescence about 2" tall with another one on its way. So far the plant has produced male buds, which drop off before they open. However, now that my *B. albo-coccinea* has decided to grow I can start to propagate it to share with other ABS growers.

*B. albo-coccinea* with dark pink buds graces the cover of the May/June 2007 **Begonian**. In **The Flora of British India [1879]** C. B. Clarke described the flowers as being "many, bright, rose-colored." I am keeping my fingers crossed that my flowers open so I can see what color mine will be.

*B. albo coccinea* W.J. Hooker 1845 is synonymous with *B. wightiana* Wallich 1831, & *B. grahaminiana* Weight 1852. India is the only place where this species has been recorded, and Clarke gives its find spot as "Mysore & Carnatic." Carnatic is the obsolete British misspelling of Karnataka, and the former state of Mysore is now assimilated in the current state of Karnataka in south India.

Rekha has successfully propagated several leaves using the paper towel method. My plant grows in my air conditioned office under lights. As my plant matures I will give you up dates.

Until then.....Happy Growing!

## New Guinean Begonia Species – Japanese Growers' Challenge

*Masahiro Shino*

Among Japanese horticultural enthusiasts, there is a large group who value plants with beautiful foliage, and appreciate their many variations. The plants they admire are called "**Leaf plants to be looked at**" translated directly from a Japanese word "**Kan-yo Shokubutsu.**" Native flora such as fern rhaps, Oriental orchid, *Rhodea japonica*, Selaginellaceae, *Ardisia japonica* and wild gingers have been earnestly grown for 300 years [since the Edo era].

Plants are selected for such characteristics as deformation of leaf form, gradations in leaf color, accentuation of leaf pattern, or any unusual features which looks as if the leaves were creating their own art. Currently many foreign plants with decorative leaves are grown as indoor plants in Japan. However, there are no plants which demonstrates the best and most artistic leaf forms as begonias do. Among the many begonia species there are two from New Guinea, *B. serratipetala* and *B. bipinnatifida* [Petermannia], which are difficult to grow but very popular in Japan.

*B. serratipetala* was first collected in 1909 by D. R. Schelechter in Danip, in the northwestern part of New Guinea, and introduced by the celebrated begonia taxonomist, Dr. E. Irmischer, in 1913. Records tell us that Mr. Sakanashi of Nagoya Higashiyama Botanical Garden brought it from Hawaii in 1964.

*B. serratipetala* is a shrub type and often has slender, arching stems. The blade is asymmetric, ovate, apex acuminate, & deeply incised with a dentate margin. The blade color is a glossy, dark green with reddish pink dots scattered between veins, and the color tone depends on the exposure to sunlight. The leaves acquire a richer reddish tone under brighter conditions. The flower blooms in spring with 2 male and 5 female petals, in dark red color with serrate margins. Skilled growers are challenged by this species, and acknowledge that it is difficult to achieve the best form and color.

In its native habitat it grows in the humus rich soil of the equatorial tropical jungle about 75m above sea level. It needs about 70% humidity, and therefore a combination of peat moss and sphagnum moss should be used for growing it where it will receive sufficient light. This species does not do well in a terrarium as the slender stems are likely to arch downwards, and the leaves likely to rot in the confined space. Adequate watering is the key to success.

*B. bipinnatifida* has such an unusual form that when it is on display people wonder if this is really a Begonia. Its fern-like appearance with deeply incised, spreading foliage is captivating. It was discovered in New Guinea (precise location unknown) and has a fairly long history of cultivation dating back to 1906. There is no record of when this species arrived in Japan, but it appears to have been introduced comparatively recently.

The erect main stem has alternately spaced lateral stems with bipinnate 10-12 compound leaves deeply incised like bird's feathers. The stems are red and the blades light green. The basal part of the inflorescence consists of 1-2 female flowers with 5 petals, and the apical part consists of 2-3 male flowers with 2 petals. Usually female flowers come out earlier than male flowers, but with equally slender and attractive pink and rose petals. The flowers bloom all year round. It is necessary to grow this species in a closed container as it requires high humidity, around 70% or so. Compost of sphagnum moss and peat is the most suitable growing medium. As the plant grows upwards it soon outgrows the confined space, and needs to be trimmed. New plants are easily propagated by stem cuttings

In addition to these two species there are other unique begonias from New Guinea such as *B. breviformis*, *B. augustae* [Petermannia], and those of the *B. symbegonia* group. All these embody the mysterious qualities which bewitch Begonia enthusiasts.

## An Overview of Species Seed Growing in Melbourne, Australia

*Tricia Marriott*

The 8<sup>th</sup> Australian Begonia Convention in March 2005 was the start of a friendship with Rekha Morris when she agreed to come visit us as a Session Speaker. Her tales of adventuring in the cause of begonias, as well as her knowledge and wonderful photos, led to lasting friendship and support for her travels.

In time seed arrived to be shared around and we happily planted same. We experienced what could only be described as some successes and some startling failures. Rather mortifying. A number of us experienced some very similar results getting seed up then finding that they damped off or wilted from mildew. Some seed did not deign to appear and some behaved very well. Getting plants to maturity was a bit of a challenge. We decided that this was partly due to the inexperience of the grower about certain plants, partly due to temperatures at time of planting, and partly to the vagaries of particular plants well out of their natural habitat. Some plants we already had here but a great number were new to Victoria.

This article is based on my seed-raising journey as a member of the Melbourne Begonia Society from June 2006 to the present time. Melbourne is in south-eastern Australia where it sits on 37 degrees South latitude corresponding to San Francisco in the Northern hemisphere. The graph [*at the end of this article on p. 6*] shows what is considered our temperate - Mediterranean style climate, but these figures are being affected by the drought conditions we have experienced in recent years. We grow all types of begonias – in the ground, in pots and in terrariums.

In 2006 I was an untried seed grower. My seed growing journey from 2006 to 2009 has been interesting, and one that stimulated my interest in begonias and seed raising & simultaneously added extra grey hairs. This is the story of some of the successes and some of the failures in this pursuit of begonia conservation in Melbourne, Australia.

**In 2006** I read numerous seed-raising articles, and sorted out what seemed to be universal practice as opposed to personal preference. My data recording was a bit casual, an important point that I seemed to miss in the literature, and one I regretted later. I used a recommended commercial propagating mix (sterilized), and a seed tray with a vented cover. Damp sphagnum moss was layered in the large base tray in which the smaller containers fitted. The tray was placed on a heat pad in a south facing window.

The first set of seeds were from Mexico, and from among these a few species were selected on the basis of their hardiness in our area. The success rate was far below my expectations. The medium seemed too heavy to my inexperienced eye. However, I managed to get a number of plants up to move them on into individual shot glasses and off the heat pad. I then over-watered some and they definitely did not like it. As the rest grew they were moved from the seedling area to a plastic-covered greenhouse further down the garden as it got warmer. Then disaster hit.

Peter and I had been forced to remove two very large trees plus elderly shrubs at the start of winter which had sheltered the greenhouse and so it was very exposed when gale-

force winds unexpectedly arrived. The plantlets were tossed every which-way and only some could be salvaged.

**In 2007** I used  $\frac{3}{4}$  sterilized peat mixed with  $\frac{1}{4}$  propagating sand for half the seed and  $\frac{1}{2}$  peat with  $\frac{1}{4}$  propagating sand and  $\frac{1}{4}$  coco fiber for the balance of the seed (My recording improved which helped later comparisons). Some seed germinated poorly, some well and some did not appear at all. The second mix seemed to dry out far too quickly despite twice daily misting, and this may well be the reason for the unresponsive seed.

After six months any unresponsive seed tray sections (plus some left over from 2006) still in their covered trays and apparently on still-damp sphagnum were removed from the heat pads and stored in an out-of-the-way area. They sat there for many weeks until I had time to clean them out. One day I realized that there was a green haze on some. I resurrected the rest and waited a bit longer. Eventually other sections produced plants, taking between 14 to 19 months to appear. Again difficulties arose in raising them to maturity. In certain instances I believe I was too impatient to move them along and so over-stimulated, over-watered and over-potted some. Still there were successes.

**In 2008** I decided on using only the peat, first soaked in a very weak seaweed solution before planting the seed. I followed the same set-up, with trays and heating pads as previously. Some seeds were now under lights in an outside very-shaded greenhouse and some were inside at a south-facing window. I duplicated the seed trays for each area.

Each time I planted seed I tried to plant just a few, not an easy task as we know. Seed came from plants endemic to Mexico and India and I read many more articles including Rekha's travel reports, and inspected any photos I could locate. Melbournites try not to be envious of northern friends who

grow begonias so easily outdoors whilst we have to resort to covered shelter or terrariums. Naturally we try to provide conditions most appropriate for these plants. This entails experimenting with various methods and growing conditions of which we have no prior experience. I do not think I was thorough enough about habitat knowledge as I now suspect that some might have germinated better without being on heat pads.

The following is an outline diary of some of the plants and their reactions:

### ***B. carolineifolia***

In 2006 it took over 18 weeks for 20 plantlets to appear. They looked reasonably healthy for months, but refused to grow! After another 14 weeks I started foliar feeding with a very weak seaweed solution as I was wary of scorching the roots. It took nearly a year for the mature leaf shape to emerge. I was beginning to wonder if they really were *B. carolineifolia*. Eventually I ended up with fifteen very healthy plantlets to share at a meeting nearly 18 months after setting the seed.

In 2008 I planted two groups of seed. Those under lights germinated in four weeks and those in a south-facing window in eight weeks. After ten weeks both groups looked identical with little plantlets at various heights from pinpricks to 1 cm. These sat and looked at me warily for nearly six months. From two to four months I foliar fed half of each group with a very weak seaweed solution, and the other half were drip fed directly on the soil. I also varied the liquid feed every two weeks. They did very little through late spring and summer but in autumn a number of them took off. Multiple mature leaves sprouted and I needed to pot them on. They are still looking healthy although they vary in size between 2cm and 10cm.

*B. heracleifolia* came up after about two weeks but damped off and disappeared. Other growers had better success and now have flourishing plants.

*B. griffithiana*, *B. multinervia*, *B. carpinifolia* and *B. pinetorum* did not germinate at all.

*B. karawinskyana* came up between two and five weeks but most were victims of the storm. Others had good success with this plant. I kept one going until early this winter when it wilted apparently due to lack of watering just as a vicious cold snap came.

*B. barkeri* has been very erratic. The first batch came up in just over 4 weeks but with a very poor response. The plants never appeared to be very strong and limped along. I think I possibly over-watered them and so lost the lot.

By the time I got my hands on more seed in 2008 I had learned a bit more about this plant. This time I split the seed between under-lights and at the south-facing window. The 'window' plants came up strongly but some took 24 weeks to appear. One seed had decided that it was raring to go and appeared after 14 days and just bolted from day one. It lost two leaves over this winter but is now a mature plant with five leaves and standing 20 cm. The next in size is about 5 cm, and the rest are still very immature but look healthy. This growth variation is something that has happened with many of the seed I planted even when grown under seemingly identical conditions.

*B. incarnata*: the first planting in 2006 did not germinate. The 2008 batch was slow to show, taking 21 weeks, and then very slow to grow. Mature leaves have only just appeared after 8 months and regular feeding. However they look healthy and I have great hopes for this plant. I have a particular liking for *B. incarnata* [as this newsletter was

being prepared it has bloomed for Tricia].

*B. xanthina* was one I was particularly looking forward to growing. It too took between 12 and 14 weeks for 13 plants to emerge. I cannot be sure about how many should have come up but I did expect more. All reached mature leaf stage by 27 weeks and so I passed on five very small plantlets to a friend but they did not survive, and neither did six of mine. Of the remaining two, one has grown to nearly 20cm and had a male flower in early summer. The other, originally grown in an identical part of the same seed tray, is only 5 cm high but healthy. Both are in terrarium conditions.

*B. sikkimensis* germinated between 14 weeks and 24 weeks but damped off for some reason. This happened to others too.

*B. sarcophylla* took 32 weeks to germinate and about 30 are growing very, very slowly. Those under lights did not surface at all. Those inside in the south-facing window are doing well, and three have mature leaves. I am hoping that warmer weather will make a difference.

*B. venosa* has been one of the delights of this experience. Some seed took only 13 days to show and only past experience made me wary of shifting apparently non-responsive tray sections from the growing areas. This proved very wise as seed continued to germinate at different times for up to 49 weeks. Why, I cannot fathom, & I am still working on this. Now there are close to 50 plants in various stages of growth, from 1 cm to 14 cm mostly off heat, and many growing without any special assistance although all are well sheltered and very lightly watered and fed. This many have survived despite my over-watering a small batch just as a cold snap hit us, and I was feeling smug about how well I was doing. Nature does bring one down to earth at times!

My next challenge is to gather seed for others. So I am patiently watching and waiting for the right time for this to happen. In the mean time I am reading up on more 'how to' literature.

Thank you Rekha for this opportunity to commune with nature even if it means additional grey hair!

### Graph showing weather conditions in Melbourne

Melbourne, Victoria. Latitude 37° 50'S - Longitude 145° 0' E												
Month	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Temp *C/*F	19/ 66	20/ 68	20/ 68	19/ 66	16/ 61	13/ 55	11/ 52	10/ 50	11/ 52	13/ 55	15/ 59	17/ 63
Rainfall. mm	60	50	45	50	55	55	50	50	50	60	65	60
Ave hours daylight	14.5	14.5	13.5	12.2 5	11	10	9.5	9.5	10.5	12	13	14
Season	Summer			Autumn			Winter			Spring		

#### Welcome New Adoptees

Laurie Bounsall : B. aridicaulis, U074, & B. edmundoi  
 Doug Byrom: BU 067, B. burkillii, & B. mariti  
 Tommy Gillam: B. rajah & B. rex Putzeys  
 Charles Meyer : BU 498, & BU 494 [= B. barkeri with red veins]

#### Changes in Previous Adoptions

Wally Wagner: **Dropping:** B. leprosa & B. santo-limae  
**Revised :** B. staudii, B U 508,  
**List :** B. thelmae & B. versicolor

#### Apologies for Omissions

My sincere and abject apologies to **Janet Brown** whom I inadvertently omitted from the list of adoptees in no. 11 of the **SOS Newsletter**.

Janet Brown: BU 176 & B. opuliflora

#### Invitation to Join the SOS Program

I invite all begonia growers in the USA and outside it to support the efforts of the ABS to Save Our Species by adopting one or several species to keep alive in cultivation. **All you do is to select a species or several to adopt, grow and share these with others, and inform me.**

**I am merely a record keeper of who is adopting which species.**

**I DO NOT  
 ASSIGN SPECIES FOR ADOPTION**

#### Editor's Notes

Almost from the first year I joined the ABS in 2000 I began to hear about the great difficulty of growing B. albo-coccinea in the USA. At that time I had just discovered species begonias, and had no idea that one day [not too far in the future as it turned out] I would be looking for and documenting species begonias, first in Mexico, and then in India, the only currently known home of B. albo-coccinea. It was highly satisfying to finally grow this species, and it is even more so to know that the 3 seedlings I started with are thriving, and about to be parents of a growing progeny of B. albo-coccinea in the USA thanks to the skills of Tom Keepin.

Although the 3 articles in this issue have been contributed by begonia enthusiasts from as disparate growing areas as SW USA, Japan and Australia, their experiences have one common theme: the trials and tribulations of growing species begonias. Despite the difficulties & frustrations involved Tom Keepin, Masahiro Shino, & Tricia Marriott embody and demonstrate the persistence, dedication and patience required to succeed with this genus appropriately described as 'Jewels of the Rainforest'. My own experiences of attempting to grow begonias from seed broadly parallel those described by Tricia Marriott. The one exception is that my seedlings do not dampen off and die in their early infancy. My secret ingredient is **NEEM**. I saturate the growing medium with a solution of dry **neem** leaf powder in water before sowing seeds. Neem is not only a powerful insect repellent but also has strong anti-fungal properties. Those of you who are frustrated by the recalcitrance of begonia seeds, might well emulate Tricia's determined efforts, & success will [eventually !] be yours as well!

**Rekha Morris**