

# Gaultonia

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## THE GENUS REBUTIA

By Peter Bint

Following last year's look at the genus *Mammillaria* I would like to delve a little into the highly floriferous genus *Rebutia*. This must be one of the most widely cultivated genera of plants in the cactaceae. Overall they are plants which are easily cultivated and produce masses of colour on a regular annual basis. These plants are to be found growing wild in the Andean mountain range mainly in Northern Argentina and Bolivia. I believe people grow them because of their ease of cultivation and the fact that they will flower in the second season of growth from seed. As they come from the Andes they are well able to withstand the rigors of cold conditions. The only thing they ask is to be kept dry during the months of October through to March when they can be gently awakened with a good spraying followed by regular watering according to the weather conditions. The bodies will shrink considerably in winter but do not be worried by this natural phenomenon. Buds may well have started to appear before that first watering. They are highly adaptable plants and will survive happily in a greenhouse or conservatory, or in a porch or on a windowsill, preferably a south facing one.

In habitat they are very small growing plants rarely reaching a diameter of 3.5 inches. In the greenhouse, sheltered from the elements and predators they may well achieve greater dimensions dependent on which section of the genus they are from. However it is easy to keep the plants small by removing offsets and rooting them up to sell, swap or give away. The body form is globular to short cylindrical, rarely achieving a height of 3 to 4 inches. Spination is soft, plentiful and colourful ranging through white to yellow to brownish. The flowers are often large in comparison to the body of the plant and in some species completely hide the body from view under the copious blooms. In the majority of cases the blooms range from purple, red, orange, yellow to white with some having bicoloured flowers.

There is much discussion and many viewpoints are held as to the actual make up of the genus and recent years have brought *Sulcorebutia* and *Weingartia* under the *Rebutia* umbrella. For the purpose of this series of articles I intend to take only the plants that make up "pure" *Rebutia*. From my point of view I am considering the genus to be broken into four sections:

- Section 1 *Aylostera* (type *R. pseudominuscula* Speg.)
- Section 2 *Mediolobivia* (type *R. aureiflora* Backbg.)
- Section 3 *Digitorebutia* (type *R. pygmaea* (R. E. Fries) Britton & Rose)
- Section 4 *Rebutia* (type *R. minuscula* K. Schumann)

There is a proliferation of names for plants that are barely different in appearance and various collectors/botanists have described the same plants but given them varying names because there was no collaboration between the various parties as they rushed to be the first one in print. I do not intend to make this series of articles into highly technical pieces as these can be found in many books written by people with far greater knowledge and understanding than I possess.

### **FLOWERING:**

All species in the genus *Rebutia* are day flowering and insect pollinated and most of them are self fertile. As always some of the most beautiful are amongst those that are self sterile. In Britain *Rebutias* will mostly flower in mid to late Spring (April and May). However *R. marsoneri* will blossom as early as late February and March in favourable years.

### **CULTIVATION:**

Cultivation overall is easy. They enjoy plentiful watering in hot spells but be sure the soil is well aerated with added grit to prevent rotting. In cooler, wetter spells be sure the soil has dried out before watering. Damp soil attracts sciara fly so it is excellent practice to have a good layer of grit across the surface of the soil, round the neck of the plant. Not only does it prevent the fly from laying eggs in the soil (remember it is the sciara larvae that eat up into the plant through the roots) but also it prevents overswift evaporation of moisture from the soil and protects the neck of the plant from rot. The more plants experience near freezing temperatures the better they seem to flower. They are easily propagated from seed and from cuttings. With the latter allow a week for the cut to heal over and pot up in your normal potting mixture with a good layer of grit sand on top for the cutting to sit on. Keep evenly moist and place the pot in good light away from direct sunlight. The cutting should root up quickly. The smaller the cut surface the easier rooting is.

### **PESTS AND DISEASES:**

- Mealy Bug: this pest loves to hide at the base of a clustering plant where it is invisible to the eye. It also enjoys sucking sap from the crown of young offsets. It is advisable to spray with a systemic insecticide three or four times a year to

counteract this relative of the aphids. Use of a variety of insecticides helps to prevent them becoming immune to one particular type.

- Root Mealy Bug: though not as prevalent as the above it should be treated in a similar fashion to it. It tends to only be discovered upon repotting, something that is needed on a regular basis with plants in small pots.
- Red Spider Mite: this is a pernicious pest. It loves the soft bodies of Rebutias which provide it with plentiful food. Two things alert you to its presence.
  - a). a fine silky web, particularly over the new growth in the crown. It may be possible to see minute, pinpoint size red mites moving along the strands, especially with the help of a magnifying glass. Do not confuse these with an easily spotted, fast moving red "spider" 1 to 2mm across which feeds on the pest being written about.
  - b). brown marks on the plant surface where the mite has already extracted the sap leaving marks that cannot be eradicated. The only cure for that is to allow the affected area to grow down to the base of the plant. As prevention is better than cure, treatment is as for the mealy above is recommended.
- Sciara Fly: as mentioned earlier prevention is necessary. Cure is hard because discovery of the larvae tends to be upon demise of the plant. General insecticides that kill aphids will kill the fly.
- Vine Weevil: this is a nuisance but rarely bothers Rebutias in my experience. They prefer leafy plants. Again there are general insecticides that will do the job.
- Western Flower Thrip: this is a new pest to our shores which, as the name suggests attacks the flowers. Discovery of a means of killing this is ongoing. John Miller may have information to help. It is not common in our area but does exist.

## SECTION 1: AYLOSTERA.

This section has an extensive distribution in Argentina and Bolivia. It occurs from Tuome Province in the south, throughout Salta and Jujuy in Argentina to Tarija, Potosi, Chuquisaca and Santa Cruz Departments in Bolivia. Below is a list of names that may well be encountered in this section;

albiflora, albipilosa, albiareolata, albopectinata, aureispina, buiningiana, camargoensis, cajasensis, cintiensis, deminuta, donaldiana, fiebrigii, flavistyla, froehlichiana, fulviseta, fusca, heliosa, hoffmannii, huasiensis, ithyacantha, jujuyana, jujuyensis, kieslingii, kupperiana, lauii, leucanthema, mamillosa, muscula, napina, natida, nogalensis, pseudodeminuta, deminuta f. pseudominuscula, pulchella, pulvinosa, robustispina, ruboginosa, schatzliana, spegazziniana, sphaerica, spinosissima, supthutiana, tarijensis, tarvitaensis, tuberosa, vallegrandensis, vulpina and zecheri.

Several of the species have named varieties as well.

I do not claim this list is totally comprehensive but it certainly covers the vast majority. Many are very similar to one another and I have grown nearly all of them at some time.

Aylostera is fairly readily recognised in its flowers which are funnelform. As the flower grows the long, thin funnel leading down to the seed pod (ovary) becomes readily noticeable. Hairs and bristles grow on the outside wall of this funnel. The self fertile flowers lead to round, bristly fruits with persistent flower remains. The plant bodies become short cylindrical in maturity. Clumping occurs very readily and clumps can reach 8 inches or more across in age. The ribs are poorly developed from rounded to hexagonal tubercles. These have the hardest bodies of the whole genus.

The gem of the group is, without a shadow of a doubt, **R. heliosa**. This is a highly distinctive member of the Rebutias in that the body appears to be almost white with myriads of reddish brown dots all over the surface. This is caused by the multitude of white radial spines which hide the body from view completely. The reddish brown dots are the areoles. The bodies grow to about an inch or so in height and diameter. In habitat it is unusual to find a plant with more than 2 or 3 bodies but in cultivation they will gradually clump up to make very handsome specimens in age. My plant is over 10 inches across and has taken 30 years to achieve this size. The flowers are orange in colour. It has two varieties; **R. heliosa v. cajasensis Lau 405** and **R. heliosa v. condorensis Lau 401** (rarely seen under the incorrect name *R. solisioides*, an invalid name erected by Karel Knize). Neither have quite the same splendour as the species but are very attractive nonetheless. All these plants need a little more care than the general Rebutia but should reward your efforts with year round attraction. In the early days nearly all specimens were grown grafted which causes the plant to elongate. Even now many specimens offered by nurseries are grafted. Much better to grow it on its own roots. A beautiful hybrid has been produced between **R. heliosa** and **R. albiflora**. It is faster growing, with smaller heads than *R. heliosa* and achieves wider diameter in age.

Several 'species' are referable to this group, namely; *supthutiana*, *albopectinata*, *perplexa*, *schatzliana* and *densipectinata*. For an explanation of the confusion amongst these species an article in **Ashingtonia (1975) Vol 2 No. 3** by John Donald helps to sort out the situation.

One other member of this section that I feel deserves special mention is **R. tarvitaensis**. It is a much quicker growing specimen with a dark green body that is considerably larger than *R. heliosa*. It will eventually form a large cluster 12 inches wide with individual heads being 2 to 4 inches high. The outstanding feature in this plant is the large pink flower that has an even darker midstripe. It is a wonderful sight in bloom.