An Account of the Hybrid Genus x GRAPTOVERIA

(Graptopetalum Rose x Echeveria DC) Part 1

by J. C. van Keppel

Hybrids between species of *Graptopetalum* and *Echeveria* are included under the name x *Graptoveria,* derived from a combination of parts of the parental generic names *Grapto-* and *-veria.* But the history of this artificial genus started long before the name came into general use. In 1936 Mr Pierre Gossot from Corbeil, France, started in a small French journal called "Notre Vallée", under the title "Nouveaux Hybrides", a series of descriptions of new *Echeveria* hybrids. Not much is known to me about Gossot. His name is mentioned in "Liste des plantes Grasses sauf Cactées du Jardin Botanique des Cèdres", St. Jean-Cap-Ferrat, by Mr J. Marnier-Lapostolle, and I suppose he served him as curator. He was also in touch with Prof. Dr A. Guillaumin from the Museum National d'Histoire Naturelle at Paris, who was interested in Madagascan succulents. Of the seventeen hybrids described by Gossot, four are recognised now as x *Graptoveria,* although he described them as *Echeveria.* In "Liste des Plantes Grasses . . . . (1949) Marnier-Lapostolle mentioned two names for these intergeneric hybrids; *Echepetalum* Gossot *n.nud.* and *Graptoveria* Gossot. Under *x Echepetalum* he mentioned two hybrids: *haworthioides (E. agavoides* x *G. weinbergii = paraguayense)* and *serpens n. nud.* Neither plant is any longer in cultivation, so we can forget them. Under *x Graptoveria* he has *calva (G. arizonicum = paraguayense x E. pulvinata).* This is the only hybrid named by Gossot as *x Graptoveria.*

Gordon Rowley in "Some Name Changes in Succulent Plants" (Nat. Cact. Succ. J. 13(4): 75, 1958) mentions x *Graptoveria haworthioides* (see above and x *Graptoveria calva,* already named by Gossot.

In Succulenta 43(9): 125, 1964, I started a publication on "Het hybride-geslacht Graptoveria" (the hybrid-genus Graptoveria) as a result of researching on plants received by the Institute of Horticultural Plant Breeding at Wageningen, Holland, from Marnier-Lapostolle. I first described and characterised this artificial genus, based on the four cultivars I was able to identify: 'Calva', 'Caerulescens', 'Acaulis' and 'Titubans'. In fact all the names given by Gossot were *nomina nuda* (not described validly according to the International Code of Botanical Nomenclature). For that reason I have treated them as cultivars, according to the Code of Nomenclature for Cultivated Plants. Jacobsen, in "Das Sukkulenten Lexikon" (1970) and "Lexicon of Succulent Plants" (1974), mentioned the cultivar names and used the descriptions as given by me, except x *Graptoveria* 'Haworthioides', which I have not described because this is not in cultivation. In Succulenta 58(9): 224, 1979, I started a series on "New Cultivar Names in x Graptoveria" where I named and described hybrids raised by Albert Baynes and Douglas Huth. Some of these hybrids are found in cultivation under invalid names or without names. I used the invalid names in the right way and for the unnamed ones, by way of acknowledgement, used names of persons with a long record of service in the NCSS.

Fig. 1: GRAPTOPETALUM PARAGUAYENSE
Photo J. C. van Keppel

Some of the discussed graptoverias are in general cultivation and often are of horticultural value or botanical interest. As well as cultivars of French and English origin, others raised in America came into cultivation during the last few years. They will also be included. Most of them are quite different from the European cultivars, due to the use of other *Graptopetalum* species as male or female parents. Whereas most European hybrids are raised by using *Graptopetalum paraguayense* as one parent, the American hybrids involve *Graptopetalum macdougallii, G. filiferum, G. saxafragoides* and others. For that reason most of the European cultivars are caulescent plants, often branching higher up the stems, while the best known American cultivars are acaulescent or nearly so and often richly branched at the base. Because so many more cultivars are known nowadays I have to widen the description of x *Graptoveria* as given by me in 1964 and also published in "Lexicon of Succulent Plants" (1974).

x Graptoveria Gossot ex van Keppel

Echeveria Gossot *p.p.* in Notre Vallée 22: 19, 1936; *l.c.* 26/27: 29, 1939.

x *Graptoveria* Gossot in Liste des Plantes Grasses sauf Cactées du Jardin Botanique des Cèdres, 1949:27.

x *Echepetalum* Gossot *l.c.* 1949:23.

Caulescent or acaulescent, branching from the base or higher on the stem(s). Rosettes short or extended. Leaves spatulate or obovate round to lanceolate, tapering, greenish to bluish, sometimes with irregular reddish blotches, pruinose or reddish pink or blue without blotches, margins sometimes reddish or whitish. Inflorescences usually numerous, cymose or racemose, axis cincinnate; bracts large or small, often withering; corolla mostly urceolate, seldom projecting radially, colour yellowish to whitish, spotted reddish or unicoloured, 5 of the 10 stamens strongly recurved between the corolla-segments. Sepals appressed, short, pedicels 1-3 cm long, sometimes with 2 bracteoles.
Propagation by cuttings and leaf-cuttings.

x **Graptoveria** cv. **'Acaulis'**

Graptopetalum paraguayense x *Echeveria amoena. Echeveria acaulis* Gossot in Notre Vallée 22: 24, 1936. x *Graptoveria* cv. 'Acaulis' van Keppel in Succulenta 44: 4-5, 1965.
This hybrid has been for a long time in general cultivation through its easy propagation by leaves, under the name *Echeveria* x *acaulis* (Jacobsen Handbuch 1954 : 463 and Handbook 1960 : 366). In habit it resembles somewhat *Graptopetalum paraguayense* but with a much shorter stem and different colour of the leaves. However, the inflorescence shows clearly the influence of *Echeveria* by its campanulate flowers. Besides the known clone with unspotted flowers I have had in my collection another clone with spotted and smaller flowers, but I nearly lost this plant by a fungus disease in the stem last year. I saved some bracts, which seem to form leaf-cuttings. I am afraid that it was the last specimen of this clone, and the better known clone also becomes rarer in collections. As *Echeveria longicaulis* Gossot described another x *Graptoveria* similar to 'Acaulis', except that it grows with a long stem, over 40 cm a year. I have never seen such a cultivar and I suppose that it no longer exists in cultivation.
Description :
Stem short, but not at all acaulescent as supposed from the name. Rosette compact, dense-leaved; leaves obovate-spatulate to oblong, 1-3 cm long, up to 1.5 cm across, rather thick bluish-green, waxy pruinose, sometimes with reddish spots; the younger leaves triangularly flattened at the top, somewhat recurved, with a blunt mucro, convex on the back. Inflorescence a cyme with 3-7 cincinni, each with ca. 10 flowers; corolla campanulate, yellow to pale orange, 1 cm long, petals connate at the base; 5 of the 10 stamens recurved between the petals; pedicels 2-3 cm long, slender; sepals short, appressed green; bracts few, soon withering. Flowers nearly all the year.

Fig 2: x GRAPTOVERIA cv. 'ACAULIS'
Photo J. C. van Keppel

x **Graptoveria** cv. **'Caerulescens'**

Graptopetalum paraguayense x *Echeveria elegans. Echeveria caerulescens* Gossot in Notre Vallée 24/25: 36, 1938. x *Graptoveria* cv. 'Caerulescens' van Keppel in Succulenta 43 : 180, 1964.
Gossot mentions in his description "one of the parents probably *Echeveria weinbergii*" (= *Graptopetalum paraguayense).* Jacobsen and Rowley, basing their opinion on this, write "probably also referable here is *Echeveria caerulescens* Gossot", (Nat. Cact. Succ. J. 13(4) : 75, 1958). It is clear that they did not know this cultivar, because when it is in flower it is indeed obvious that it belongs to x *Graptoveria.* The influence of *Echeveria elegans* is visible in the bluish leaves with a more or less translucent edge. However it is different from this species in forming a stem with offshoots higher up and with fewer leaves per rosette. Grown in full sun in summer the leaves take on a nice pinkish colour. It is noteworthy that I had a specimen from Mr Jack Brown of Uxbridge which he had received in 1948 from the Rev. Douglas F. L. Huth of Hove, Sussex, which is very similar to 'Caerulescens'. It was said to be raised by Mr Huth himself and I wonder if this specimen differs in its inflorescence, because 'Caerulescens' has a special characteristic in its flowers which I have never seen in any other x *Graptoveria.* Often the buds abort and the petal tips remain tightly packed and never open out.

Description :
Stem-forming, at first bluish, later grey-brown; rosette open, 10-15 cm in diameter, offsetting in the leaf axils with a long stalk. Leaves obovate-round to oblong, ascending, later recurved, with a short apical mucro, ca. 7 cm long, upperside concave to flat, underside convex, carinate, bluish,

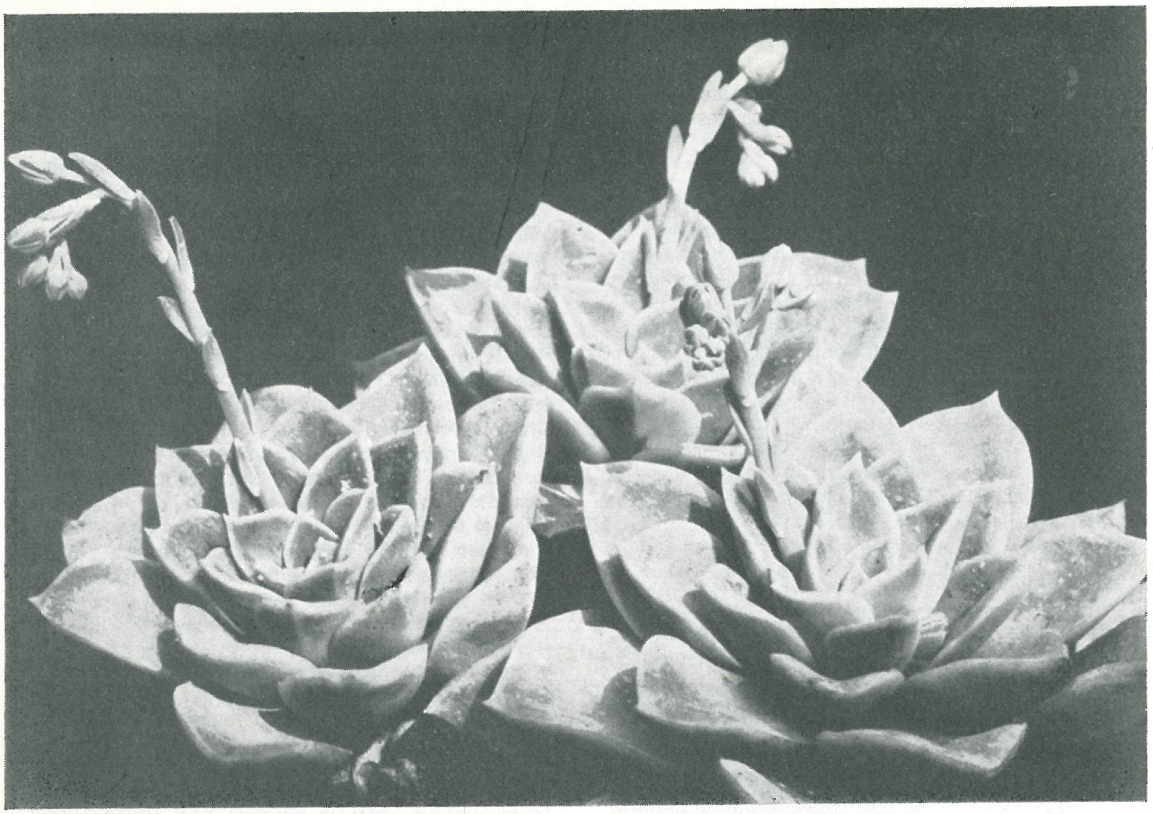

Fig. 3: x GRAPTOVERIA cv. 'CAERULESCENS' Photo F. Noltee

white-pruinose, margins translucent, white, often colouring pinkish. Inflorescence a single or forked cincinnus, with small soon withering bracts, stalk reddish-green. Flowers yellow, sometimes pinkish outside, unspotted. Flowers May-June.

x **Graptoveria** cv. **'Calva'**

Graptopetalum paraguayense x *Echeveria pulvinata. Echeveria calva* Gossot in Notre Vallée 26/28: 29, 30, 1939.

x *Graptoveria calva* Gossot, in Marnier-Lapostolle Liste des Plantes Grasses sauf Cactées du Jardin Botanique des Cèdres, 1949 : 27, nom.

x *Graptoveria* cv. 'Calva' van Keppel in Succulenta 43 : 166/167, 1964.

From a horticultural viewpoint this cultivar is not very important, but because it occurs in collections we cannot eliminate it. It is a strong, branching plant with few-leaved rosettes at the top of the stems and forms several flower stalks in summer. As a hanging plant it has some decorative value. Two clones were known to me about 1964 but as far as I know only one exists nowadays in cultivation. There are two types of inflorescence : one with a few small bracts and another with many leaf-like bracts which remain on the plant after flowering. The manner of growth is like that of *E. pulvinata,* but the flowers are very different from this species, small and yellow. It is a pity that the plant has not inherited the nice big orange flowers of *E. pulvinata.* 'Calva' means glabrous—which says nothing because all Gossot's *Graptoveria* hybrids were glabrous.

Description :

Caulescent; rosettes lax, to 15 cm in diameter, with many offsets between the leaves; leaves obovate-lanceolate, pointed, ca. 7 cm long, upperside concave to flat, underside convex, carinate, sea-green, margins lighter, glabrous and glossy, scarcely pruinose. Inflorescences horizontally spreading, the tops ascending; flowers in racemes, the axis with 1-4 flowers; stalks long with yellow, red-spotted flowers; petals free, 12 mm long, strongly carinate, scarcely or not spreading at the top; stamens not recurved, bracts large or small. Flowers in June-July, sometimes on to the winter.

x **Graptoveria** cv. **'Titubans'**

Graptopetalum paraguayense x *Echeveria derenbergii.*

Echeveria x *titubans* Gossot in Marnier-Lapostolle Liste des Plantes Grasses sauf Cactées du Jardin Botanique des Cèdres 1949 : 26, nom.

x *Graptoveria* cv. 'Titubans' van Keppel in Succulenta 44: 5,6, 1965.

This x *Graptoveria* has a quite different habit from the other mentioned hybrids. The rosette looks like a very vigorous *Echeveria derenbergii* and also in the inflorescence can be seen the influence of this species. However, the flowers show the typical charcteristics of *Graptopetalum :* the recurved anthers and some red spots on the inner side of the petals. Because of its tall-growing stem this cultivar can be used as a hanging-plant.

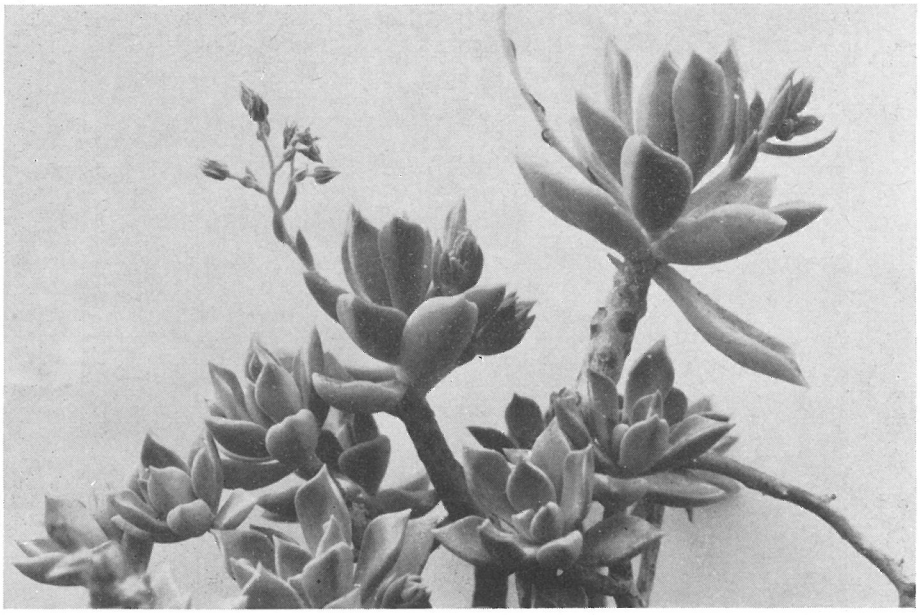

Fig. 4 (above): x GRAPTOVERIA cv. 'CALVA'
Photo J. C. van Keppel

Description :
Caulescent, stems long; rosette densely leafy, 5-10 cm in diameter; offsets few; leaves obovate-round, actutely pointed, upperside flat, underside convex, slightly carinate, up to 6 cm long, 3 cm across, 0.5-1 cm thick, light green, grey-blue pruinose; inflorescence a cyme of 9-22 flowers; flowers 1 cm long, yellow inside with some spots, orange-yellow outside, corolla somewhat spreading; sepals ovate, acute, 0.5 cm long; pedicels 2-3 cm, slender; bracts small, few; flowers in April-May.

Fig. 5 (below): x GRAPTOVERIA cv. TITUBANS'
Photo J. C. van Keppel