

ON CACTUS-SAFARI IN BRAZIL

(Translated from 'Succulenta' January 1967)

Mhr. Buining, President of the Dutch Cactus Society, writes:-

In the afternoon of November 2nd, I came by aeroplane into Porto Alegre (Brazil). The sun shone fiercely and it was particularly torrid. After a car journey of 160Km., we arrived with our host at Arroio de Seca.

On November 4th we climbed a mountain of 600 m. and found there an *ottonis*-variety growing on bare cliffs together with *Hechtia*, with waving palms here and there. On the way-back a farmer called to us and showed us a patch of certainly 50 *Echinopsis*, all in full bloom with deep red flowers.

On the next day we left by car for Santa Cruz, then to Cachoeira do Sul and Cacapava do Sul where we slept overnight. On the following day we collected many cacti in the Serra do Cacapava, such as *Notocactus scopa* f., *Gymnocalycium denudatum*, and a single species of *Frailea*, and on the next day we found two new species of *Malacocarpus*. In this region, the mountain tops tower out of the strong hilly landscape, like bizarre heads, all that remains of earlier volcanic eruptions (Volcanic? In S.E. Brazil? Ed.)

To reach these tops we had to clear a road with great chopping knives through pretty well impenetrable virgin forest. The trees are overgrown with flourishing *Tillandsia* and the splendid pendulous plants bar our way, moving bewitchingly with their strange handsome flowers, the lovely fragrance making us imagine we are in paradise. Big green parakeets carry twigs for their huge nests, and their nestlings make a great noise.

Pretty well all the cacti grow on the bare mountains, the *Fraileas* along the edge where there is more overgrowth. The *Malacocarpus* are like stones from a distance, but they appear after all to be plants with flat roots about 50 cm. long. One can loosen the plants easily, complete with root and all, and it is incomprehensible how these plants live or survive during long drought.

Also by Lavras and Candelaria we discovered some particularly interesting plants. I imagine, from the huge regions we could see in the distance, that there must be still a lot of undiscovered plants. The great difficulty is, however, that these mountains have appeared, so far, to be unreachable.

The weather is very changeable; during sunny weather the temperature rises over 30°C, then for days thunderstorms with heavy rainfall.

On our journey, which lasted 7 days, we travelled about 1,000 Km. and collected amongst others:- *Notocactus scopa*, *Malacocarpus sellowii*, *M. longispinus*, *Notocactus crassigibbus* sp.n., *N. arachnites* sp. nov., *N. proliferus*, *N. horstii*, *N. horstii* v. *juvenalisformis*, *Gymnocalycium denudatum*, *Frailea pygmaea* v. *major*, *F. horstii*, just to mention a few. *Notocactus ottonis* comes in many varieties.

Next week, Heer Horst and I hope to make a journey of about two months through Santa Catherina, Parana, Minas Gerais, and Bahia.

To be continued.

COLLECTING NEOPORTERIANAE - 1

For many years I have had two or three plants of *Neoporteria* in my collection, which were quite nice looking plants with many long thin spines in striking colours, varying from pale cream through honey brown to dark brown. On occasions I had noticed, in other member's collections, plants which were entirely unknown to me, some well-spined named either *Horridocactus* or *Pyrrhocactus*, others named *Chileorebutia* which seemed at first glance to be almost totally lacking in spines.

It was during our 1964 Continental Tour to Austria that I (and probably many other members of the party) discovered a surprisingly wide range of species from these genera both in collections and available from nurseries. Further varieties were acquired on our 1965 Continental tour to Belgium and Holland. Many species names encountered then were unknown to most of us. A quest for information written in English yielded very meagre results; however, those fortunate enough to have access to Backeberg's 'Die Cactaceae' or continental Cactus Journals, and able to translate any desired part into English, had a much better fund of information at their disposal.

Both in Austria and Belgium it is common practice to shade collections for much of the year e.g. by whitewashing the glass. This may be considered to account in some degree for the very short, weak, pale spine formation and open tubercle structure exhibited by many of my young *Neoporterianae* which have been acquired as one or two-year old grafts. Even a part-season's growth in our far-from-clean-and-sunny atmosphere produced a strengthening of the spine formation, which further improved during a subsequent season's growth. This seasonal strengthening of spine formation, however, may perhaps be a typical characteristic, since a similar annual improvement in spine length and robustness has been observed on plants in Dr. Mortimer's and other collections. I am even finding that *Chileorebutia*, which I acquired with spines so short, thin and colourless, as to be hardly visible, are now producing spines that are at least more readily discernable and have some pigmentation.

This changeable characteristic of the spine colour and length appears to be common in young plants of many species in the *Neoporterianae* group and it may be as well to bear this in mind when identifying plants from written descriptions.

Another characteristic which appears to be susceptible to seasonal (and other) changes is the epidermis colour on some *Neoporterianae*. There are probably more species in this family with very dark reddish-brown coloured bodies than there are amongst all other cacti; experience to date seems to indicate a fair consistency in the shade of grey, pink, brown, bronze, red or black, infusing the green epidermis and characterising a particular species. During the winter, the intensity of pigmentation decreases in some plants, so that more of the natural green colour becomes evident. This January, the epidermis of my *Neoporteria villosa* is almost grass-green, suffused only slightly with the deep violet black pigment that typifies the body colour for most of the year.

Whilst most of my *Neoporteria* are grafted, I do have some on their own roots, some species being grown both ways in order compare any variation in body characteristics between the two modes of growth. So far I have not produced a tap root on any of my *Neoporterianae* - nothing resembling the subterranean tubers so well illustrated in Vol. III of 'Die Cactaceae', although my *Mammillaria formosa* and *Lobivia higginsiana* have been transferred to deep pots to allow their tap roots to take a natural course. W.G. Sykes writes that "I try to pot my *Copiapoas*, *Neoporterias*, *Coryphanthas* and other tap-root forming plants every year - usually putting them up two pot sizes instead of one". Other collectors let the tap root coil up inside the pot.

Three or four species of *Neoporterianae* have flowered for me; of those which have not flowered, some species have been observed in flower in other collections - and perhaps vice versa, since the current series of articles by Bonefaas and Parr in our N.C. & S.S. Jnl. state

that *N. aspillagai* and *N. esmeraldana* have not been seen in flower, whereas I have found *N. aspillagai* to be free flowering; my *N. esmeraldana* just grows and covers itself with pups, but two members of our nearby Hexham Branch seem to produce a wealth of bloom on *N. esmeraldana* each year.

On many *Chileorebutia* and *Neochilenia*, a flower bud which fails to mature may turn into an offset; my *napina* and *esmeraldana* (and even a *Notocactus*) have done this. The *N. chilensis* offset mentioned in the current N.C. & S.S. article (December '66) on *Neoporteriae* will probably be of this origin.

As observed by the *Dodonaeus* (*Chileans* No.2 p.4), *Neoporteriae* with yellowish flowers seem to bloom in summer, whilst those with typical *Neoporteria* flowers - pink with recurved inner petals - flower in winter. In Lamb's "*Cactus & other Succs. Illustrated*" Vol III, *N. cephalophora* is recorded as flowering in late autumn - even as being in flower at Christmas. E.W. Putnam, too, has flowered *N. wagenknechtii* in October. The New Zealand South Island clubs' Newsletter "*Southern Spine*" for August 1964 records that "*Neoporteria rapifera* is a plant most treasured in our collections for its pleasant habit of flowering in winter". Since this last comment is from the Southern Hemisphere, we may perhaps infer that the length of day (or night) has some influence upon when these plants bloom.

No cultivation difficulties have been encountered to date with any *Neoporteriae*. Indeed, these plants have been watered - and dripped on - almost without discrimination; they have had to suffer periods of summer drought when other matters have demanded attention, or the occasional slosh of water in winter when the *Crassulas* and *Cotyledons* and *Cleistocacti* were being given a drink. My own experience on ease of growing has been more akin to that reported by our friends the *Dodonaeus* (*Chileans* No.2) than by our Czech author (*Chileans* No.4).

We should be pleased to hear of your own experience in growing plants in this group and particularly how it compares with the comments made in this - and previous - bulletins.

H. Middleditch.

SOME OBSERVATIONS ON NEOPORTERIA

By E.F. Lloyd. From the New Zealand "*Southern Spine*" Vol.6 No. 4.

In October 1962 I sowed seed of *Neoporteria multicolor* (Ritter sp.n.) and obtained plants with pure white, yellow, tan and dark mahogany spines and I have kept two plants of each distinct spine colour. These plants, although still small, are developing densely, intricately twisted spines which almost completely obscure the plant body and make mature plants so outstanding. An interesting observation on these seedlings concerns their epidermis colour; those with pale coloured spines have grass green bodies, and the dark spined plants have purple-green bodies. There were no exceptions to this among thirty seedlings, and since all received identical treatment, it is unlikely that the purple epidermis of the dark-spined plants can be attributed solely to sunlight.

A similar relationship has been noticed between spine and epidermis colours in seedlings of another new species introduced by Friedrich Ritter, FR 535 *Neoporteria microsperma*. This species appears to be particularly variable from seed; in a batch of sixty seedlings now in their third year, at least four distinctly different forms are evident. Some have green bodies adorned with stout, straight, straw-coloured spines tipped brown; some have moderately dark bodies densely covered with straight, long, thin brownish spines; one little beauty has a body almost as

black as "the ace of spades" with short, black, twisted, spines; but the majority have purple-green bodies with dark brown, twisted spines which will probably be quite stout on the mature plants. This seems to be another species where anyone specialising in *Neopterterias* could make a collection of the different spine-forms. FR 474 *Neopterteria senilis* is another plant which I have noticed to be variable in the colour, length, and thickness of the spines.

FR 473 *Neopterteria coimasensis* (Ritter sp.n.) is described (Winter 1962, p. 16) as "very variable. Spines short or long, straight or bent, fine or stout, pale yellow to brown, to grey". In fact, it seems that the spines assume any form! Does this explain why in North Island collections many specimens labelled *Neopterteria coimasensis* appear identical with the white-spined form of FR 243 *Neopterteria multicolor*? Are some of these so-called species merely varieties? My own experience in growing this species from seed is limited, because the seeds did not germinate well. However, the few seedlings so obtained appear identical with older plants obtained in the past from a well-known South Island grower. In view of the extreme variability of spine form described in Winter (loc. cit) it is indeed surprising that three plants obtained from the South Island grower from seed which I estimate was sown about 1960, should prove identical with the plants obtained from my own sowing of seed in 1962. These plants all have a green epidermis, stoutish, somewhat twisted spines (but not closely intertwining) up to 1½" long, coloured straw-yellow with browner tips, sometimes almost black. The flowers emerge from the top of the plant, are nearly 2" long and a beautiful rose-pink colour.

The *Neopterteria* group is indeed a very beautiful, interesting and variable one. Most of the flowers are similar - varying only slightly in colour and shape - but who cares, coming as they do in the depths of winter. It is unfortunate that there are no type descriptions of some species, and from our point of view it is also unfortunate that much of the available literature on these plants is in the German language. Until translations are made, we hobbyists are going to help one another.

SULCOREBUTIA

Following our article in *The Chileans* No. 3, J.D. Donald writes "I have a large number of these plants and I would say that they show polymorphism to the greatest extent of any genus I know. There are at least eight distinct forms of *S. tiraquensis*, and six distinct forms of *kruegeri*, at least two for *lepida* and *mentosa*, similarly for *glomerispina* and *caniqueralii*; *steinbachii* and *polymorpha* are also excessively variable.

The taxonomy of *Sulcorebutia* in Backeberg's *Lexicon* contains inaccuracies, the following species being proper to the genus:-

<u>arenacea</u>	(Card.) Ritter. <i>Nat.C. et. S.J.</i> 16 (1961), 81 syn. <i>Rebutia arenacea</i> Cardenas C. et. S.J. <i>Amer.</i> 23 (1951), 94.
<u>breviflora</u>	Cardenas <i>Kakt.u.a. Sukk.</i> 16, (1965); 74 as <i>Rebutia brachyantha</i> syn. <i>Sulcorebutia breviflora</i> Backbg. <i>Die Kakt. Lex.</i> (1966), 414.
<u>caineana</u>	(Card.) Donald. <i>nov. comb. prov. syn.</i> <i>Rebutia caineana</i> Card. C and S.J. <i>Amer.</i> 38 (1966). 4; 143/4.
<u>candiae</u>	(Card.) Buin. et. Don. <i>Sukkde.</i> VII/VIII, (1963), 104 syn. <i>Rebutia candiae</i> Cardenas C. et. S.J. <i>Amer.</i> 33, (1961), 112. (Backbg. <i>nov. comb.</i> in <i>Kakt. Lex</i> is superfluous)

- canequeralii (Card.) Buin. et. Don. C. and S. J. G. B. 27 (1965), 57 syn. Rebutia caniqueralii Cardenas C. et. S. J. Amer. 36(1964); 26. (Backbg. nov. comb. in Kakt. Lex is superfluous)
- glomeriseta (Card.) Ritter Nat. C. et. S. J. 16 (1961), 81. syn. Rebutia glomeriseta Cardenas C. et. S. J. Amer. 23, (1951); 95.
- glomerispina (Card.) Buin. et. Don. C and S. J. G. B. 27 (1965), 80 syn. Rebutia glomerispina Cardenas C. et. S. J. Amer. 36 (1964); 40.
- haseltonii (Card.) Donald nov. comb. prov. syn. Rebutia haseltonii Card. C and S. J. Amer. 38 (1966), 4; 143.
- hoffmanniana Backbg. Die Kakt. Lex (1966) 415. syn. Lobivia hoffmanniana Backeberg Die Cact. III (1959); 1434.
- kreugerii (Card.) Ritter in Nat. Cact. et S. J. 16 (1961); 81 syn. Aylostera kreugerii Cardenas in Cactus (Fr) (1958); 260.
- lepida Ritter Nat. C. et S. J. 17 (1962); 13
- menesesii (Card.) Buin. et. Don. Sukkde. VII/VIII (1963); 104 syn. Rebutia menesesii Cardenas C and S. J. Amer. 33 (1961); 113 (Backbg. nov. comb. in Die Kakt. Lex is superfluous)
- mentosa Ritter Succ. 43 (1964); 102
- polymorpha (Card.) Backbg. Die Kakt. Lex. (1966); 416 syn. Rebutia polymorpha Cardenas in Kakt. u. a. Sukk. 16 (1965); 115
- steinbachii (Ward.) Backbg. C and S. J. G. B. 13 (1951); 96 syn. Rebutia steinbachii Werdermann Notzbl. Bot. Gart. u. Mus. II (1931); 268
- steinbachii v. gracilior Backbg. Die Kakt. Lex (1966); 416
- steinbachii v. rosiflora Backbg. Cactus (FR) 19 (1964) 80/81; 5
- steinbachii v. violaciflora Backbg. Cactus (FR) 19 (1964); 80/81; 6
- sucrensis nom. nud. Ritter FR 946
- tarabucensis Rausch Kakt. u. a. Sukk. 15, (1964); 92
- taratensis (Card.) Buin. et. Don. C and S. J. G. B. 27 (1965); 57 syn. Rebutia taratensis Cardenas C and S. J. Amer. 36 (1964); 26 (Backbg. nov. comb. in Kakt. Lex is superfluous)
- tiraquensis (Card.) Ritter Nat. C. et. S. J. 16 (1961); 81 syn. Rebutia tiraquensis Cardenas in Cactus (Fr) 1958; 257 (Backbg. nov. comb. in Die Cact. VI (1962) is superfluous)
- tiraquensis v. electracantha Backbg. Descr. Cact. Nov. III (1963); 14
- totorensis (Card.) Ritter Nat. Cact. et S. J. 16 (1961); 81 syn. Rebutia totorensis Cardenas in Cactus (Fr) (1958); 57; 259
- tunariensis (Card.) Buin. et. Don. C and S. J. G. B. 27 (1965); 80 syn. Rebutia tunariensis Cardenas in C and S. J. Amer. 36 (1964); 38 (Backbg. nov. comb. in Die Kakt. Lex is superfluous)
- verticillacantha Ritter Nat. C. et. S. J. 17 (1962); 13
- verticillacantha v. verticosior Ritter Nat. C. et. S. J. 17(1962); 13

<u>weingartioides</u>	nom. nud. Ritter FR 944
<u>weingartiana</u>	hort ex. Krahn (via Uhlig and Uebelmann)
<u>xanthoantha</u>	Backbg. Die Kakt. Lex. (1966); 418 Possibly identical with FR 774 and <i>S. menesesii</i> .)
<u>zavaletae</u>	(Card.) Backbg. Die Kakt. Lex (1966); 460 syn. <i>Aylostera zavaletae</i> Card. Kakt. u. a. Sukk. 16: 9, 177 (1965).

R.E. Hollingsbee comments upon the differences in spelling of species names in various publications (the correct botanical procedure is to accept the spelling of the original authority, as in the list above - Ed.) Also that "Judging by my plants, *S. sucrensis* would not appear to be similar to *caniqueralii*, as suggested by Rausch, but resembles *kruegeri* somewhat. I have about 20 species and forms of *Sulcorebutia*, mostly grafted. I have a grafted plant of *S. steinbachii* and also one on its own roots; the difference between them is remarkable - but then they are probably different forms of the species. One plant has a dark, dull green body with spines that are practically black. The other plant is lighter green with brown spines and I also have a red spined form. I also have two colour forms of *S. kruegeri*, one with brown and one with white spines.

"I have been given an offset from a beautiful dark reddish brown spined form of *S. tiraquensis*, but alas I don't seem to be able to root offsets and I don't think other *Sulcorebutia* offsets that I have given away have rooted either.

"In the N.C & S.S. article on *Sulcorebutia*, Ritter suggested that, in setting up the genus *Sulcorebutia*, Backeberg had utilised a characteristic - the cut or fold above the tubercle - which is either wrongly described or non-existent. Has Backeberg corrected this generic diagnosis, e.g. in the Lexicon? "

Come forth, you *Sulcorebutia* wizards, and tell us how to root offsets - Ed.

THE GENUS ERIOCACTUS BACKEBERG

By Dr. A. Simo Translated by E.W. Bentley from the November 1966
Newsletter of the Austrian Cactus Society.

For the study of this genus the author used imported material belonging to the Linz Botanical Garden, together with what he had acquired himself both in 1965 and 1966. This was so interesting that it practically demanded a thorough investigation - which also took in evidence from seeds.

Until a short time ago only two species of *Eriocactus* were known, *E. leninghausii* (Hge jnr) Bkg and *E. schumannianus* (Nic) Bkg. These two species presented a certain difficulty in correctly placing them in the 'system'. Originally put under *Echinocactus*, Britton and Rose placed them in *Malacocarpus* and Berger in *Notocactus*. In 1942 Backeberg removed them from the last-named genus and erected the genus *Eriocactus*. This genus did not gain universal recognition but was recently fully recognised by Friedrich Ritter after he and Horst discovered and validly published two further species of this genus. Particularly in the discovery of *Eriocactus magnificus* FR, has Ritter brought to light the existence of what is clearly a further development away from *Notocactus* which, even more than the type species *E. schumannianus*, seems to justify the genus *Eriocactus*.

Backeberg established his genus *Eriocactus* as follows:- Body eventually columnar, crown (in contrast to *Notocactus* !) later becomes strongly felted, flowers (which Dr. Simo reports, come from the crown or immediately below it) large, short tubed and wide opening, stigmas always yellow, fruit a spherical berry, firm, basally opening, the seeds numerous, free. A peculiarity is the later steeply inclined crown which is turned towards the light. A synopsis of the species which are now known allows addition to the diagnosis of:- Flowers always yellow of various shades, style and stigmas yellow, also the anthers and filaments. The stigmas robust, mostly more or less strongly twisted, the fleshy fruit dry when ripe, seeds in the wool of the crown.

E. leninghausii described by Haage jnr as *Pilocereus leninghausii* in 1895, is well known. The vigorous green body is solitary, sometimes branching from the base and reaches 1 metre high and 10 cms in diameter. The stems are at first erect, later bending down to the ground and even hanging over rocks; the crown always stands upright and turns to the light. Ribs up to 33 (perhaps more), separated by shallow, only 3 mm. deep furrows, are lightly notched or serrated. From the closely set round areoles radiate on all sides up to 15 straight, yellowish, scarcely over 5 mm long outer spines, which are bristle-like rather than spiny. The 3 or 4 central spines are up to 4 cm long, light to golden yellow. The showy flowers from the wool of the crown.

E. schumannianus described in 1895 by Nicolas, has a body at first spherical to broadened-spherical, later becoming club-cylindrical, curved at the base into a whistle shape, upright to recumbent-climbing, up to 150 cm long and 12 cm diameter, with an oblique slightly to strongly white woolly felted crown, from which springs a strong tuft of up to 2.5 cm long brown, fox-red to yellow bristle like spines. New stems light blue-green, later dark green ascending from the base, turning corky and yellow-brown. Ribs, depending on age up to 30 or more separated by sharp straight furrows, slender sharp to slightly rounded, up to 8 mm. high, weakly indented or serrated. Areoles conspicuous, small, round, up to 2 mm. in diameter, those near the crown with a cushion of woolly felt - which however soon disappears. Areoles 7-15 mm. apart. Spines 4 - 7, sometimes more, irregularly placed, bulbously thickened at the base, length varying (the lowest always the longest), very brittle and easily detached. Centre spines lacking or one only, shorter than the outer spines, the latter whitish to fox-red to grey to black. Flowers from the crown or near it, short-tubed, wide funnel shaped, up to 4 cm. long and broad and in full sun opening wide. Receptacle and flower tube strongly woolly and scaly. The basal part of the scales rounded, soft-fleshy. The scales lengthen to become almost worm-like and end in a distinct spiny tip. On the inner basal part of these scales are numerous threads of wool and laterally a prominent strong, long bristle. This characteristic is not yet described in the literature, but is however characteristic of *E. schumannianus*, but also occurs in *E. magnificus*. Floral leaves, stamens, also style and stigma, yellow. Several subvarieties or forms of *E. schumannianus* have been described.

E. claviceps FR resembles *E. schumannianus* closely in habit. It differs from the latter in the shorter (only up to 50 cm. tall) body, substantially closer (3-8 mm.) areoles, spines more delicate, mostly 1-3 centre spines (*schumannianus* 0-1), flower tube longer, floral leaves much wider, flower colour sulphur-yellow. In its seed shape *E. claviceps* is obviously closer to *E. leninghausii* than to *E. schumannianus*. The (bonnet-like) seeds of *claviceps* and *leninghausii* are almost the same in size, shape and in the furrows down lengthways, whereas the seeds of *E. schumannianus* are shorter and have distinct small protuberances.

E. magnificus FR is an important and splendid new discovery. The body is spherical, later elongated, occasionally branching from the base - seldom higher up, capable of flowering at 7-15 cm. diameter, handsome blue-green (at first, as a seedling, dark green), crown oblique as a rule and turned to the light. Ribs 11-15 straight, 15-30 mm. high, triangular in cross-section, edges fairly sharp, only widened out somewhat at the areoles. Areoles longish with white felted wool and connected with each other by a bridging-over of felt (like *Marginatocereus marginatus* !). Spines on flower-bearing plants 12-15, needle shaped, soft, golden-yellow, 8-20mm. long evenly distributed over the areole; accompanied on the upper and lower edges of the areole by numerous white, nearly straight, about 8 mm. long, outwardly directed hairy spines.

Flowers yellow, springing from the crown, only open in the daytime, about 5 cm. in diameter. Receptacle round, pale yellow-green, thickly covered with yellow fleshy flat-lying scales, which as in *E. schumannianus* end in a soft bristle, and completely enveloped in white wool. Stamens, style, and the strongly twisted stigma are light yellow.

This very fine species was found on March 19th 1964 at Arroya de Seca by Leopold Horst and Fr. Ritter and with its blue-green epidermis, the white felt and white hair-ribbon crowned ribs and the golden yellow spines, undoubtedly represents the finest cactus discovery of recent time.

In conclusion, there comes the most striking new discovery of recent years, the species nova H.U. 106. This new find has given rise to all kinds of speculation. Some guess a Brazilian *Astrophytum*, others speak of a *Copiapoa* and again others of a cross between *Astrophytum* and *Copiapoa*. None of these reflections will stand up to proper examination. Since neither flowers nor seeds are known, the generic classification of this plant, which has recently been presented as *Uebelmanniana brasiliensis*, cannot be finally pronounced upon. The habitat could place it with *Eriocactus*. The description follows:- Body at first spherical, later columnar, solitary. The three plants at present in Oberösterreich have a diameter of about 8 cm. The crown of these plants is so far not oblique. Epidermis dark-green, broken up by numerous small, round, pimply lumps (not wool-flecks as in *Astrophytum*), which are furnished with a grey-white covering partly scaling off on older parts of the plant.

Under the microscope it can be seen that this coating consists of dead epithelium cells, possibly with a waxy component. Ribs 12, about 1 to 1.5 cm. high, maximally 1.5 cm. wide, straight, deformed at the base owing to shrinkage, dorsally sharp, basally broad. Furrows between the ribs straight. Areoles very close together, depressed (!), having thick yellowish-white felt in the vicinity of the crown, which however soon disappears, between the areoles bridges by wool-felt. The crown is thickly woolly and - so far - flat. The 3-7 spines are solid awl-shaped, sharp, brittle, all outwardly directed, straight, only sporadically weakly bent. Middle and outer spines scarcely differing, equal-sized, in young growth grey-black, later silver-grey, dark-tipped, all spines almost the same length - about 10 to 12 mm.

Only about 80 of these plants were apparently found, of which some half were collected and reached the firm Su-ka-flor (W. Uebelmann). These plants were discovered in S.E. Brazil.

(*Eriocactus claviceps* and *E. magnificus* were illustrated and described in the Dutch Cactus Society's Journal "Succulenta" for April and August 1966. The November 1966 'Kakteen a.u.s.' includes a photograph of *Uebelmanniana brasiliensis* - Ed.)

K. Halstead comments on this article:-

'The article by Dr. Simo omits *Eriocactus grossei*, thus by inference accepting its synonymy with *E. schumannianus*, as stated by Backeberg in *Die Cactaceae* and *Lexikon*. I have one plant of each and they are to all appearances identical, but I cannot claim validity for their naming. Backeberg says that one of the distinguishing marks claimed by the discoverer of this species in 1899, Karl Schumann, is that there are never more than four spines in one areole and the ribs on a very young plant were sixteen. This number of ribs has since been quoted by other authorities for mature plants. It is interesting to note that Nicolas named the other species after Schumann in 1893.

The emphasis upon the crown of an *Eriocactus* inclining towards the light would appear to be open to question. I have one plant of *E. leninghausii* which I obtained as a three year old seedling and this has inclined its crown to the north. Admittedly it may have originally turned

towards the light but it has been in its present position for the past four years and has done nothing to alter its slant. Another seedling which is now six years old is still with a level crown and I am awaiting to see which way it will turn. I have heard from a number of people who disagree with the suggestion that the crown of Eriocacti always turn towards the light. I have seen no reports from collectors who have been on field work on this matter, but comments from that source would be appreciated !

NEWS AND VIEWS

Herr Wolf Kinzel, who organises the Round Robins for the D.K.G. (German Cactus Society), writes to tell us that "The D.K.G. Round Robin about the Chileans, alas, is missing. I guess I must start it anew. There are, you know, some negligent participants which lose such a Round Robin with all the precious letters in it and then for shame don't risk to say frankly 'Yes, I lost it, sorry'. Your name is in my files for this round robin and when I start it anew, you will participate automatically".

Come on now, own up! Who is holding our own Neoporteriae Round Robin? Disinter it, please, and send it on its way! Some of our subscribers in New Zealand have written to say how much they are looking forward to receiving this round robin.

Following the comments from Dr. Priessnitz in our last issue about growing Chileorebutia on their own roots, D. Angus observes that he has tried rooting pups taken from various Neoporteriae in a moist mixture of sand and peat. These usually establish roots within a month - in particular, pups of *Ch. esmeraldana* produce roots quite readily.

The article in recent issues of the C. & S.S. of G.B. Jnl. by Rowley and Donald on the 'Re-union of the genus Neoporteria' not only re-names all *Horridocactus*, *Pyrrhocactus*, *Chileorebutia*, *Neochilenia* and *Islaya*, as *Neoporteria*, but also reduces many current species to varieties, forms or synonymy. Although the subject is covered only in a general way and no evidence offered to validate a change in status of any particular species, there nevertheless appears to be much worthy of discussion in the proposals. The article also suggests that there is no clear division between the Neoporteriae and the *Notocactus* - *Malacocarpus* - *Eriosyce* groups. Reprints of this article are available price 2/6 each (p & p inc.) from G. Rowley, 130 Whitmore Road, West Harrow, Middlesex. The Chileans would be very pleased to receive any comments on this article and in particular to hear from subscribers who are growing plants in any of the following combinations:-

- a) *Napina*, *mitis*, *glabrescens*
- b) *Krausii*, *eriocephala*, *floccosa*, *napina* v. *lanigera*.
- c) *Villosa*, *polyraphis*, *atrispinosa*.

C.C. Baxter tells the Chileans that he will be sowing seed of some of the new *Notocactinae* this year; he would like to know a source for seeds of *Eriocereus justbertii* for grafting stock. E. Barnes, who expects to sow most of the available HU collected *Notocactus* seeds this year, suggests Stichting I.T.T.S. at the Hague for seeds of *E. justbertii*. Any other suggestions?

SLIDES

We now have a number of copy slides to establish our slide library. Slides loaned by several subscribers have been copied for 'The Chileans' by F.K. Horwood, who tells us that there was more than the usual loss in definition in the process of copying, because of the range of variation in the density of the slides provided. This arises both from the differences in the proportion of more and less opaque areas on the slides and the differences between film of various

makes - including the effect or absence of glass mounting. Not only is the range of slide density in this batch typical of that which we must expect to encounter, but there is apparently little - if any - likelihood of obtaining better results at an economic price.

There would appear to be a possible alternative method of applying some of our funds to the establishment of a slide library - that is, by requesting any of you who are able, to take duplicate slides of suitable plants, the cost of the additional slide being met from our funds. It has been suggested that 1/- per slide would be an appropriate figure. Any views on this suggestion both as to method and as to cost level would be very welcome (and offers of slides most welcome of all).

At present we have several slides of *Neoporteria napina*, showing body, bud, and flower characteristics, but slides of any other species or variety would be welcome. A list of those plants adequately covered in the slide library will be published in 'The Chileans' from time to time, as the slide library is built up.

'The Chileans' was founded to cover South American cacti, especially the new species. The policy of this bulletin is to act as host to groups of collectors studying a genus or group of genera and to provide subscribers with the sort of articles you prefer.

The comments received in correspondence so far have proved very useful in Editorial planning. We are interested in the views of subscribers, so please indicate your likes and dislikes on the reverse when renewing your subscription with the form below.

Please don't think that because you are not well informed on some of these plants, your opinions don't matter - they do!

A special issue of 'The Chileans' is available as our 1967 yearbook, comprising a list of all known F.R. numbers applied to succulent plants. These are the field collection numbers used by F. Ritter on his cactus-collecting safarries through South America. As far as we are aware, this is the first time such a list has been made available to collectors. It should be especially valuable for those who have raised plants from seed with only an F.R. number for identification; in many cases it should be possible to give such plants a specific name by reference to this list.

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Notocactinae. K.H. Halstead, Little Firtrees, Wellington Close,
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