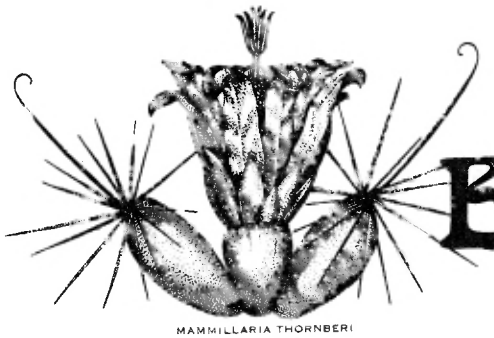

Espinas y Flores

BULLETIN OF THE SAN DIEGO CACTUS AND SUCCULENT SOCIETY
Affiliate of the Cactus and Succulent Society of America, Inc.

Vol. X, No. 8 August 1975

PROGRAM:

"Southwest Africa" by Frank Horwood, see short biography page 2.

August 9th, 1975, 1:30 pm, Rm 101, Casa del Prado, Balboa Park.

CACTUS OF THE MONTH: Melocactus.

SUCCULENT OF THE MONTH: Pachypodium.

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MEMBERSHIP: The San Diego Cactus and Succulent Society is open to all persons interested in growing cacti, other succulents and exotic plants.
Dues: $ 5.00 annually, due in December of each year.
Single copy of E y F : $ 0.50.

Meetings: 2nd Saturday of each month, 1:30 pm, Room 101, Casa del Prado, Balboa Park, unless otherwise indicated. Board convenes prior to general meeting.

Deadline for September publication is August 16, 1975.

CONSPICUOUS HAIR IN CACTI

Dr. George E. Radwin

The development of spine-structures in desert or dry-climate plants is a widespread and well-documented natural phenomenon. Such structures occur in the Euphorbiaceae, Agavaceae, Liliaceae (Aloes), and other well-known succulent groups, and in numerous other groups such as the genera Pachypodium, Fouquieria, etc.

The best known spiny succulent group is almost certainly the Cactaceae, identified by the uninitiated primarily on the basis of the presence of spine! This has caused many people to call all spine-bearing plants "cacti". Aside from floral differences, the most readily noted distinction of cacti is that their spines occur in clusters arising from growth centers, or areoles, that occur in a specific pattern on the stem of the plant. In addition to spines and flowers, most cacti produce fine hair or "wool" around the areoles. Whereas a majority of these cacti produce bunches of short wool, others exhibit substantial quantities of it. In a few genera a large, wool-filled structure is produced at maturity and flowers are formed only in that region of the plant. In the case of one such genus (Melocactus), the plant then ceases to grow, with the exception of this reproductive region. This apical mound of wool colored, soft bristles is termed a "cephalium" (Greek: head). Although masses of wool and soft spines, from which are produced flowers and fruits, and which are thus indicative of sexual maturity, are to be found in a number of other genera of cacti, controversy has arisen as to whether these are all true cephalia, or whether many are merely "pseudocephalia", resembling the classical cephalium of the genus Melocactus only superficially. . These wooly reproductive regions are found in the genera: Austrocephalocereus (Espostoopsis) Backebergia, Buiningia, Cephalocereus, Coleocephalocereus, Discocactus, Espostoa, Facheiroa, Micranthocereus, Melocactus, Pilosocereus, Pseudopilocereus, Thrixanthocereus, and Vatricania. In addition, species in many genera produce copious wool, including those in the genera: Ariocarpus, Cereus, Copiapoa, Coryphantha, Eulychnia, Islaya, Mammillaria, Morawetzia, Oreocereus, Parodia, Turbinicarpus and Wigginsia.

Regardless of the answer to the question "What is a true cephalium?", it is clear that the beauty imparted to a plant by the presence of masses of white, yellow, or tan wool, as found in these groups, makes such plants among the most sought-after of all cacti.

A BRIEF INTRODUCTION TO FRANK HORWOOD:

A born Londoner, Frank Horwood started collecting cacti as a youngster. He later specialized in Mammillaria, but, having collected some three hundred species, decided only the labels looked different. He moved to Leeds, England, in 1959 and started collecting African succulents, gradually specializing in caudiciforms. He is known in England as T.C.P., "Turnips, Carrots and Parsnips". He has spent two periods of three months in Africa collecting and photographing and has very strong views on conservation, believing that many species of succulents will soon be extinct in habitat.

SOILS: AN EXPLANATION

David R. Vann
Reprinted from CSIE, June 75.

Much is to be said about soils, and perhaps the beginner is rather bewildered by the variety of different soil mixtures. There is no 'perfect' soil, but an explanation of why certain ingredients are used may aid the novice in selecting the soil to use. Varied though they may be, soil formulas tend to agree on three main ingredients: sand, loam and leafmould. Added to these in varying amounts may be other organic or inorganic materials, such as peat moss, charcoal, perlite and crushed granite.

Though open desert areas may consist mostly of sand, it should not be assumed that desert sand is poor soil. There is seldom enough rainfall to wash away the organic material present from dead plants and animals. Therefore cactus will need fairly rich soil. All succulents require good drainage as excess water about the roots promotes decay. The primary purpose of sand is to provide this drainage and to loosen the soil, making root growth easier. It does this by keeping the soil loose and porous, preventing the soil particles from sticking together. The sand used should not be fine sand like that found on beaches. The coarse quartz grit found at many quarries is suitable. The amount used will depend on the other soil ingredients and on the plant.

Loam serves several purposes in the soil. It gives the soil body, provides anchorage for the roots and retains water. Most important, it contains soil nutrients due to its chemical structure. Only small amounts should be used - just enough to hold the mixture together is often enough. Leafmould,humus, or compost are essential to the soil to make it fertile, to loosen the soil, and it will absorb water. Numerous other organic soil conditioners are available. Peat moss, charcoal, Osmunda fiber and sphagnum moss are the commonest. Peat moss adds no nutrients to the soil but retains water. Charcoal will absorb water, though not much, loosen and sweeten the soil, and may promote bacterial growth. Osmunda fiber retains water but is neutral organically. These three are often used when potting epiphytes, along with sphagnum moss, which once wetted will retain huge amounts of water. The epiphytic cacti need little but very rich soil, and excellent drainage.

Other inorganic particles may be used to loosen the soil as well as sand. Crushed granite improves drainage, as does perlite. The latter tends to retain water. Vermiculite is not personally recommended. Lime may be added for some cacti.

In conclusion, most important are sand, loam and leafmould. These are mixed to form a soft crumbly mix which does not harden much after drying out. Other materials can be added as required.

GARDEN HINTS

Problems with mildew in seedlings? Try Consan 20 fungicide. I find it excellent for the control of algae, fungi and unwanted bacteria. It protects against damping off but should not be used on very young seedlings such as Mesembryanthemums and never on echeverias.

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SUCCULENT OF THE MONTH

PACHYPODIUM

Christel Pfeiffer

Species of Pachypodium are rarely seen in average collections. The beauty of these plants, in the eyes of the beholder, lies in their magnificent succulent main stem arising, in many species, from a thickened foot-like structure. Shrubby branches extending from a global base are not uncommon while species with a barrel-type base rarely branch out. In cultivation, the subterranean caudex found in some members of this group, such as in P. succulentum, lends itself very well for raising above soil level. Hence the name, derived from the Greek: "pachys" - thick; and "pous" - foot.

Pachypodium species are well-adapted to their arrid desert environment in Africa and Madagascar, being equipped with either formidable spines or thick, waxy leaves, or leaves heavily covered with fine dense hair.

The genus Pachypodium consists of 20 species and belongs to the family Apocynaceae, members of which are also Nerium, better known as Oleander; Strophantus, source of the heart stimulant strophantin; and many others.

All species require full sun - unless seedlings -, a porous sandy growing mixture, less than average watering and are, with the exception of P. succulentum, extremely sensitive to frost.

P. namaquanum, one of the most sought-after succulents in the world, is aptly known as "Elephant's Trunk", reportedly grows to a height of approximately 6 feet in habitat and has a very shallow root system. Columnar colonies of these tall plants present an impressive spectacle to the viewer, indeed, as each one's apex, or "head",is always turned towards the north. Marloth (1932) wrote that"It is a curious, almost uncanny sight - hundreds of tall stems all turning their heads towards the midday sun". This is a phenomenon said to be connected with the positive phototropism towards the sun's orbit across the sky.

P. previcaule is more likely to be found in private collections because of its dwarf dimensions. It belongs to the leafy variety and produces lovely yellow flowers, one inch in diameter. Propagation is by seed only and it is very slow growing.

P. lamerei, an inhabitant of Madagascar, will grow into a tall plant and mature specimens produce white flowers. It resembles P. namaquanum but the flowers of the two species are quite different and the latter is found in the northwestern Cape Province and southern South West Africa.

Some other members of the genus are: P. bispinosum, which, except for its flowers, resembles P. succulentum; and two more very closely related species are P. lealii and P. saundersii, the only major difference being that almost the entire width of the southern African Continent separates the locality native to them.

References: Vorster, Piet and Elsa, The South African Species of Pachypodium, Journal of the S.A. Aloe and Succulent Society, Sep. 1973, Vol. 11, No. 3.
Lamb, Edgar and Brian, 1963, The Illustrated Reference on Cacti and Other Succulents, Vol. III, Blandford Press, London

CACTUS OF THE MONTH

MELOCACTUS

Dr. George Radwin

As a result of early European trade with the Caribbean Islands the earliest species of cactus named was "Cactus communis" , known today as Melocactus communis.

The tropical cactus genus Melocactus is among the most beautiful and most interesting of all genera of cacti. The stem is globular and generally strongly ribbed; the spines are heavy and strongly bent. This group of plants is unique in several ways. It is one of the few cactus genera with a predominently Caribbean-Brazilian distribution pattern. Associated with this is its seeming preference for a moderately to very humid habitat. In several instances species have been found growing on ocean-side cliffs or in beach sand. It is thus, not too surprising to find that Melocactus species are able to tolerate a good deal more water than are most other cacti.

One of the most unusual features of melocacti is their development of a large, apical, wool-filled structure called a "cephalium" (Greek: head). Flowers and fruits are formed only from the cephalium, and the vegetative portion of the plant ceases to grow upon its appearance. Although other kinds of cacti also produce reproductive regions bearing copious wool, none but that of Melocactus is considered a true cephalium, all others being characterized as pseudocephalia.

The flowers are small and relatively simple, generally in shades of pink or red. As in Mammillaria the flower, after pollination, is pulled into the plant (in this case the cephalium), part of it to reappear as a pink, purple or red, pyriform fruit.

More species are native to Brazil than to any other region but the species with the widest geographical distribution is the Caribbean Melocactus intortus.

A list of the better known species would include: M. broadwayi, M. macrodiscus, M. bahiensis, M. bellavistensis, M. intortus, M. matanzanus, M. melocactoides, M. oreas, M. maxoni, and M. violaceus.

GARDEN HINTS Cont'd:

Emergency treatment for your doomed favorites: Overwatering causes black rot, a condition quite often fatal to the plant. An amateur grower describes his method of saving plants thus affected in the American Cactus and Succulent Journal (Jan.-Feb. 1955). Melt some paraffin wax and cool it to the point where it would no longer cause blistering of the skin. Then dip the butt of the remaining stem into the wax to a depth of approximately one inch and repot the plant. Reportedly, this method produces re-rooting and is particularly well-suited for Stapelia gigantia, Aloes, Haworthias, Barrel Cacti and Epiphillums.

Novel way to grow Christmas Cactus, Rhipsalidopsis, etc: (CSIE, Jan. 1975) Insert several or numerous cuttings in a ball of sphagnum moss, having first soaked same in fertilizer solution. Water every week or so, adding fertilizer every two or three weeks. One way to arrive at a ball of moss would be to stuff a plastic net bag with it (such as onions come in). Most practical way to water would be soaking in a pan of water.

CEREUS-LY SPEAKING

Here are some highlights from our annual potluck picnic at Suzanne and Bob Taylor's Cactus Gardens. Not only was the event well-attended, the company entertaining and plenty of excellent food, but there was also a table full of beautiful plants awaiting the witching - I mean, auctioneering hour. Correction, it really should read "witching" hour! Auctioneer Dr. Leroy Phelps's eloquent and skillful sales pitch truly bewitched the audience and the beautiful specimens fetched beautiful prices as well. For those of you who could not attend, here are some examples of the rare plants sold to the highest bidder, 40% of the proceeds going into our treasury.

Gasteria armstrongii	$ 2.00
Agave pumila	$ 13.00
(Highest bidder and proud owner was Mad Lee who said: "It was a bargain", and I agree with her - it was!)	
Agave utahensis v. nevadensis	$ 11.00
Astrophytum capricorne	$ 5.00
Echinocactus grusonii (crested graft)	$ 10.00
Euphorbia mammilaris variegated	$ 2.50
Agave parviflora	$ 5.50

A heartythank you to our gracious host and hostess, Bob and Suzanne.

Be sure to note the following COMING EVENTS in your calender: August 23 - 24, 1975. S.D. Cactus and Succulent Society will share a Saturday-Sunday plant exhibit with the S.D. Bromeliad Society at Casa del Prado, Room 101, Balboa Park; open to the public from 12 noon to 5:00 pm, Aug. 23rd, and 10:30 am to 5:00 pm,Aug. 24th. This is your chance to display some of your choice plants - we missed this opportunity, an annual event, in May because of the upcoming convention. Choose whatever you wish from your collection and phone Martin Mooney (427-6796) to let him know how much space you will require: tables are 30" by 8', and you may either share one with another exhibitor, reserve an entire table, or you might even want to spread out over several tables. Exhibitors are requested to set up their displays after 7:00 pm, Fri., Aug. 22, or 9:00 am, Sat., Aug. 23.

Another coming event which might be of interest to members as many aspects relate to the desert,is San Diego's first exhibit by the San Diego Turtle and Tortoise Society, Sep. 6th and 7th, 1975, Room 101, Casa del Prado, Balboa Park, open to the public from 12 noon to 5:00 pm, Sep. 6, and 10:30 am to 5:00 pm, Sep. 7. Various kinds of desert tortoises and turtles will be displayed with emphasis on preservation of the species in their natural habitat, and how to look after them in captivity.

By now both, Lena Rice and Alice Wells, are home from the hospital recuperating - we wish them a speedy recovery and hope to see them in the not too distant future.

When you have the chance, browse through our library and pick up "Cacti for the Amateur" by Scott Haselton. You will discover, that credit for the plan of a glass house constructed in San Diego, is given to one of our members of longstanding: Wilbur H. Wier!

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CEREUS-LY SPEAKING Cont'd:

One more date for your calender: Sunday, August 10th, 1975. The Cactus and Succulent Society of America will hold its Annual Meeting at the Los Angeles State and County Arboretum, 302 Baldwin Ave., Arcadia.

Program:		
	10 am	Slide program on cacti - exact subject and speaker not confirmed yet.
	11 am	Plant auction. Choice plants and fun.
	12 noon	Lunch. Brown bag or Arboretum Snack Bar.
	1 pm	Business meeting - shortest on record.
	1:15 pm	Plant auction.
	2 pm	Panel:" Viewpoints - The Asclepiads". Mary Bleck, Frank Horwood, Larry Larson, Harry Stewart and Laurel Woodley. An expert discussion.
	3 pm	Auction of any remaining plants.

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