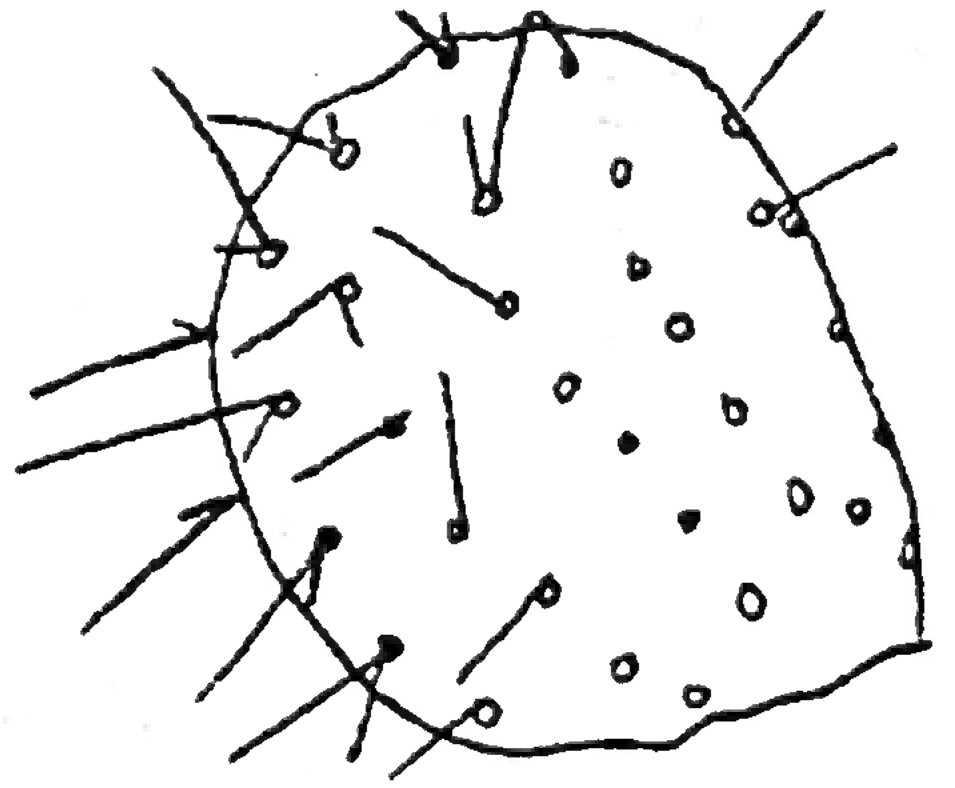


CACTOS

Y

SUCULENTAS



OFFICIAL PUBLICATION OF THE SAN DIEGO CACTUS AND SUCCULENT SOCIETY

January, 1966

VAUGHAN PRESIDENT

JANUARY MEETING

An informative talk on Bromeliads will be given by Mrs. Cleoves Hardin. Come prepared to ask questions on any Bromeliad problems you may have. Mrs. Hardin is president of the San Diego Bromeliad Society, is a San Diego County Fair Blue-Ribbon winner and operates a Cactus-Succulent-Bromeliad nursery with her husband in Spring Valley.

Mrs. Hardin has been requested to bring a variety of Bromeliads to give members the opportunity to purchase if so desired.

This meeting, we will try a Bragging Table experiment for the first time. If you have any cacti or succulents in bloom, or you are especially proud of some plant you would like members to see, please bring.

Bring a plant for the exchange table, and invite your friends. Refreshments.

DECEMBER MEETING

Election of officers; prize table drawing; collection of items for the Taylor's goodwill projects in Mexico; free gifts of Mam. hahniana to all members from the Taylors; free gift of assorted succulents to all members from Mr. and Mrs. Hoffman.

Officers elected at the December meeting of the Society were "Doc" R. V. Vaughan, Pres.; Jack Ward, vice-pres.; Mrs. Ruth Cuzner, secretary; and Mrs. Helen Howe, treasurer.

New president "Doc" Vaughan was a charter member of the Society, and has taken an active role in promoting the rebuilding of the Balboa Park Desert Plant Garden.

"Doc" Vaughan holds degrees in geology, mining engineering, and chemistry. He has been an assayer and a pharmacist, establishing the first drug store chain in Southern California. He lived on Catalina Island for 40 years, taking such prominent friends and neighbors as Mr. William Wrigley fishing.

His first visit to San Diego was in 1915 to see the fair. He drove from Los Angeles to San Diego, an almost unheard of undertaking in those days because of no paved roads or bridges. The next visit to San Diego came in 1937.

After the death of Mrs. Vaughan, 15 years ago, "Doc" continued to live on Catalina until 1954, when he moved to La Mesa. He broadcast a science program over KFI, Los Angeles, from 1954 to 1963, when he became very ill and had to undergo major surgery. When he recovered, Mr. Davies of Davies

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No work party this Saturday.

MINUTES FOR MEETING OF DEC. 4, 1965

Reported by Mrs. William Nelson

Meeting was called to order by the President.

Visitors were welcomed.

Minutes of the previous meeting were read and approved.

The treasurer's report was given. A total of \$421.31 in the bank
37.68 in post-~~cash~~
Total \$458.99

CORRESPONDENCE:

Two letters from the Colorado Cactophiles, expressing interest in our activities and appreciation for having received a copy of our news-letter, Cactus y Suculentas.

A new price list from the company from which we purchase plant markers.

Newspaper clippings--one about our member, Mrs. Conrad, being selected "Anniversary Queen" for Coronado, and one about the Caulks moving to Oregon.

A request from Mr. L. E. Newton, an English cactus enthusiast, that our news-letter be sent to him. This request had come to us through Mr. Hardin, who has been in correspondence with the group in England. This was held for new business.

COMMITTEE REPORTS:

Mr. Ward, as general chairman for the Del Mar Fair, asked for volunteers for chairmen for the different displays.

The Nominating Committee reported that a slate of candidates was ready to be presented later in the meeting.

The President reported 26 tickets sold for the project to raise money for the Japanese Friendship Garden to be planted at the County Administration Building. The \$26.00 was turned over to Mr. James Saraceno, president of the Civic Center Garden Club.

NEW BUSINESS:

A motion was made and seconded that Mr. Newton be placed on our mailing list to receive the news-letter. There was a period of discussion, and after the suggestion was made that the news-letter be sent for six months, and then Mr. Newton be asked to join the Society, the motion was put on the floor. It was carried by an affirmative voice vote.

A motion was made by Mr. Hardin and seconded by Mr. Crane, that San Diego Cactus and Succulent Society join the National Cactus and Succulent Society of England, at a membership fee of five dollars (\$5.00) per year. Motion carried.

The Nominating Committee then presented the following slate of candidates: for President--R. V. Vaughan

Vice-President--Jack Ward

Secretary--Ruth Cuzner

Treasurer--Helen Howe

A motion was made that the secretary cast a white ballot for the slate as a whole, but this was out of order, since the by-laws provide for nominations from the floor.

The President called for nominations from the floor, but none were made. He then presented the slate as a whole and called for voting by show of hands. There were no dissenting votes, and the candidates were declared elected as presented. They will take office in January. The president requested to know the pleasure of the Society in regard

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MINUTES FOR MEETING OF DECEMBER (continued from p. 2)

to the January meeting, which would normally come on New Years Day. After some discussion, it was moved and seconded that the meeting be postponed to the second Saturday in January, if the hall will be available to us on that day. The motion was carried and the secretary directed to find out if we may have the hall on that day. This being the Christmas social meeting, there was an exceptionally nice table of plants and garden accessories to choose from when the tickets were drawn, and in addition, Mr. and Mrs. Taylor had brought a fine flat of *Mammillaria hanniana*, enough so that everyone present could have a plant, and Mr. and Mrs. Hoffman had brought several boxes of various kinds of succulents for all to choose from. Mrs. Heverlin and Mrs. Hoffman had prepared a delicious spread of cupcakes and cookies to serve with the coffee.

Ruth Nelson
Secretary

GARDEN ENEMIES: LEAF HOPPERS

Order: Hemiptera

Sub-Order: Homoptera

Super-Family: Jassoidea

Family: Cicadellidae

Genera: Around 175

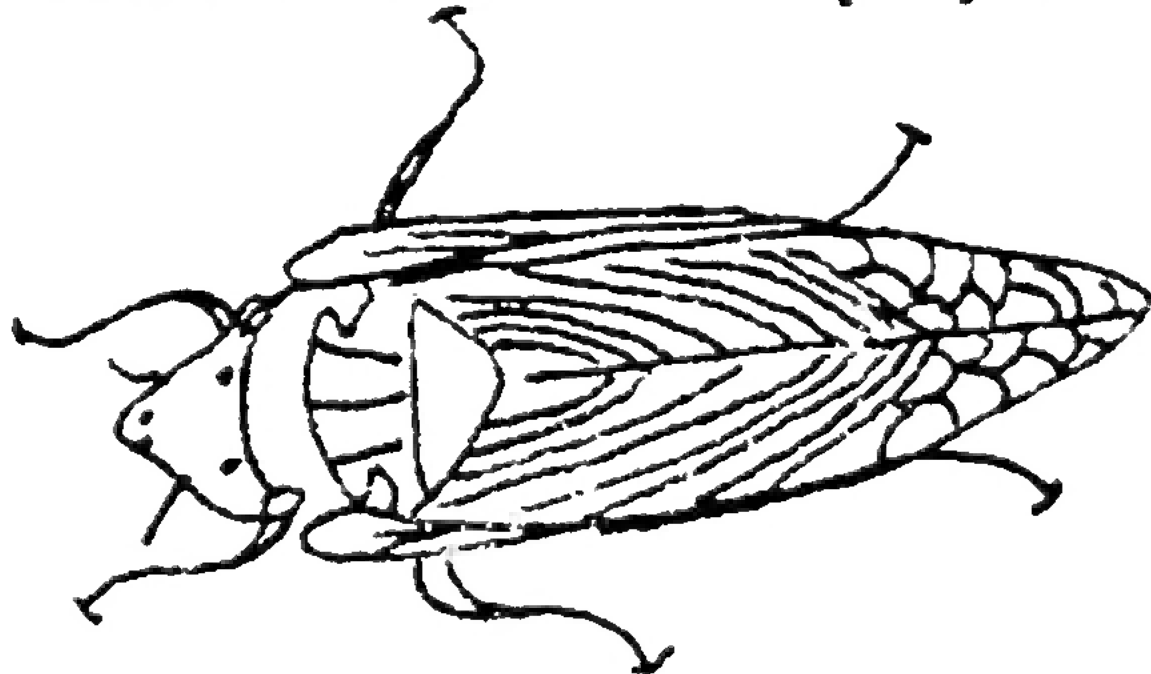
Species: Around 2,000 in the U. S.

Almost all species of plants are attacked by one or more species of leaf hoppers. They usually feed on the undersides of leaves or stems by piercing the plant epidermis and sucking the sap.

Heavy infestations may cause plant anemia, stunting, a burning effect on the growing tips, or act as vectors for various plant virus diseases.

Cacti and most succulents are not bothered much by leaf hoppers but monocots such as Agaves, Aloes, Beaucarnia, Yucca, Dracaena, etc, seem to be favorite targets.

These insects are controlled by contact insecticides such as nicotine sulfate, pyrethrum, or DDT. Undersides of leaves and the leaf axis area of monocots should be sprayed.



THE PRICKLY PEAR WAR

Most of us wait patiently for many years to see our cacti mature, and are quite surprised if they reproduce themselves without unnatural help.

There are a few very hardy cacti, such as the *Opuntia* tribe, which grow rather rapidly and need little help in reproducing themselves. However, we hardly think of them as constituting a "weed" problem. In South Africa, India, and Australia cacti, especially the *Opuntia* tribe, became weed problems.

Here in Southern California, we can see the effects of foreign plants being introduced without the coincident introduction of destructive diseases and insects from the native habitat. Prime examples of this are the Russian thistle or common tumbleweed (*Salsola kali*), salt cedar (*Tamirisk* sp.) and ice plant (*Carpobrotus edulis*). Russian thistle is the worst pest, quickly invading areas cleared of original plant coverings. In irrigated desert areas, *Tamirisk* species are the biggest problem.

Australians had the biggest problem of all areas where cacti were introduced. In fact, the Australians probably had the biggest weed problem in the history of the world.

Cacti were introduced into Australian gardens in the late 18th century, but most of these were cerei and proved to be no problem. *Opuntias* did not invade the interior grazing and farm lands until after 1787, when a Captain Arthur Phillip tried to establish a cochineal dye industry with plantings of *Opuntia ficus-indica* and *Opuntia megacantha*.

In the next 60 years over 18 other species of *Opuntia* were introduced into the interior. They spread rapidly on grazing lands because the pads stuck to the cattle and sheep and were carried to fresh colony areas. At first, too many farmers and ranchers planted them as substitutes for fences and range barriers. Also, it was believed that cattle and sheep would eat the cacti during drought periods when water holes went dry.

Opuntia species that were introduced included *O. inermis*, *O. vulgaris*, *O. tomentosa*, *O. monacantha*, *O. dillenii*, and *O. robusta*.

It is hard to imagine how rapidly the *Opuntias* spread and thoroughly they came to possess the land. By the late 19th century several million acres had become impenetrable thickets or jungles, 6 to 14 feet high, so dense that no grazing animal could penetrate. Grazing lands and farm lands were being smothered at the rate of around one million acres per year.

By 1910, the *Opuntias* had covered over 10 million acres; by 1916, more than 23 million. In 1920, the Australian government established the Commonwealth Prickly Pear Board as the first move to halt the spread of the *Opuntias*. By 1925, the *Opuntias* had conquered 60 million acres of grazing and farm lands before effective controls were established.

The Prickly Pear Board sent entomologists to the Americas, to Africa, and to India to try to discover natural enemies. Mealy bugs, leafhoppers, scale, and red spiders were introduced. These began to check the spread of the *Opuntias* but did not eliminate it.

In 1925, a moth from Argentina, *Cactoblastis cactorum*, in a control program, moved through a large stand of *Opuntias*, destroying them. During the next five years, the Australian government instituted a crash breeding program for the *Cactoblastis*. In 1930 3 billion moth eggs were distributed throughout the huge *Opuntia*

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PRICKLY PEAR WAR (Continued from p. 4)

jungles, and by 1937, the last large stand of *Opuntia* was destroyed.

Cactoblastis larva eat the cactus from the inside, causing desiccation and rot. The insect had no natural predatory enemies to control it, as it is controlled in Argentina. Thus, the largest stands of cacti in the world were destroyed in seven years.

The program had bad effects for Australian cacti collectors. Many of the native American pests became nuisances, and the *Cactoblastis* went through collections as readily as it went through the bush cacti.

Opuntias still exist in the bush, but no large stands remain, and the natural insect enemies now keep them under control. The Australian government no longer has to fight the cacti. One unusual side light to the "Prickly-Pear War" is that half a dozen bush towns have erected monuments in honor of the *Cactoblastis*.

The total cost of the project to the Australian government was 168,600 Pounds Sterling, a fraction of a cent an acre. If the *Opuntias* had been cleared by chemical and mechanical methods it would have cost the Australians around one billion pounds.

FOREIGN TOURS

A garden tour of Japan is being offered to residents of San Diego during May, 1966.

It will include guided visits to 11 Japanese gardens including the Hollyhock Festival in Kyoto, which dates back to the 8th century A. D.

Price of the 22 day tour, April 30-May 21, is \$1275.

An additional tour of 31 days, April 30-May 30, will include Taipei, Formosa; Hongkong; Bangkok, Thailand. Price \$1690.

Several showings of promotional motion pictures are to be made in the next few weeks. If interested in seeing them, call Mr. Stan Parsloe, 232-1067.

Those interested in getting additional information or in making reservations may call Mrs. Rosalie Garcia, Tour Director, 232-1067, or write Falcon Travel, 947 8th Ave., San Diego. Mrs. Garcia is on the editorial staff of Calif. Garden Magazine.

CHAIRMEN SOUGHT

Chairmen are sought for two displays at the 1966 San Diego County Fair.

Mr. and Mrs. Kim Arnold have volunteered to take the Rock Garden display again. They have been successful in winning first place ribbons in the past.

Mrs. Jack Ward (Shirley) has volunteered to take either the Hanging Baskets or the Succulents, depending upon first preference by other volunteers.

Last year, your fair display chairman was left without chairmen for two displays and took responsibility for both. This year, if a chairman is not found for any display, the Society will not enter it. Your chairman is employed in a full-time occupation through fair time and does not have the time to take responsibility for unchairmaned displays.

Those interested in Cacti, Succulents, or Baskets please contact Mr. Jack Ward.

"DOC" VAUGHAN (cont'd)

Motors talked him into broadcasting a Sunday evening show over KFMB, which ill health forced him to discontinue this past year.

After living for 15 months in La Mesa in the early 'fifties he found a house for sale on Point Loma very similar to his former home on Santa Catalina Island, and purchased it.

While broadcasting science programs over KFI, he made the acquaintance of member Bob Nelson, who was then a student at UCLA. Bob listened to the programs and came to talk on a wide range of subjects including oceanography, botany and Indian lore.

He and Bob Nelson made several exploratory trips to Baja Calif. On one of these hot dusty trips, the two encountered Bud Crane in a forest of *Pachycereus pringlei* who offered them two cans of ice-cold beer. "Doc" and Bob, who had been eating canned and dried foods, were then invited to a repast of fried chicken and potato salad, with cold beer, in Bud Crane's camper.

Even though he no longer broadcasts, "Doc" is an active short wave radio operator. "Doc" Vaughan lives with his daughter, Mrs. Ruth Cuzner, in his home on Point Loma. He has a beautiful panoramic view of San Diego Bay from his hillside balcony. One of his relaxing pastimes is bird watching and bird banding. The birds which come to his balcony for water and food are so tame they eat out of his hand.

He has written and published two autobiographies, "Catalina Diary", and "Print of My Remembrance."

OPUNTIA CLASSIFICATION

There are so many authorities who disagree with each other on the classification of the *Opuntia* tribe it is often difficult to know just what label to put on one.

For instance, if one were using Britton and Rose, or Borg, as an authority he might write *Opuntia falcata*. If one were using Marshall and Bock (revisers of B. and R.) it would be written *Consolea falcata*.

Another example would be the well known *O. subulata*. (If B. & R., Borg, and Marshall and Bock are used as authorities). Walther Haage of Germany classifies it as *Austrocylindropuntia subulata*.

Let's take another example, *O. parishii*, of B. & R., Mar. & Bk., and Borg; *cylindropuntia parishii* of Haage; *corynopuntia parishii* of Earle (Desert Botanical Garden of Phoenix.) The novice unfamiliar with disputed classifications, might think that these are three different species representing three different genera.

Britton and Rose accepted only 7 genera in the *Opuntia* tribe: *Pereskopsis*, *Pterocactus*, *Nopalea*, *Tacinga*, *Maihuenia*, *Opuntia* and *Grusonia*. They placed *Quiabentia* under the tribe *Pereskieae*.

Marshall and Bock, revisers and updaters of B. & R., moved *Maihuenia* to the *Pereskieae* and *Quiabentia* to the *Opuntieae*. In addition, they accepted *Maihueniopsis* and *Colsolea* as separate genera, bringing the total *Opuntia* genera to 9.

W. Hubert Earle of the Desert Botanical Garden, Phoenix, supports various European classifiers such as Curt Backeberg in separating the *cylindropuntias* into at least five separate genera (*Cylindropuntia*, *Austrocylindropuntia*, *Corynopuntia*, *Tephrocactus*, etc.) while retaining the genus *Opuntia* for all the *platyopuntias* except for the addition of the genus *Brasilopuntia*.

(Continued next month.)