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About the Institute

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

Jan. 26, 1960

Dear Otto:

Of course we realized that botanical identifications in our Kāua family study did not in numerous instances conform to your taxonomy, but as of that writing we felt that the sensible thing was to accept Neal and St. John. If and when there is a reprinting or rewriting we will bring the identifications into conformity with yours.

It is good to hear from you, even to be scolded — kindly and considerately!

We do not have any definite plans for return to the islands right now. I would like very much to do a study, including ethnobotany, of the Waimea area of Kauai, ~~and~~ if we come out ^{when} we expect to spend most of our time there.

At present my effort is being put into attempting to write vol. II of The Hawaiian Plantar, but it is not going very well. Winter is somehow not a time when I seem to be able to give my mind to Hawaiian writing. I think that perhaps I am really more interested in the flora than in the human beings.

Have you ever discussed with Mrs. Pukui her fern names? I think she can point out to you most of the ferns she names. As to those of which you may not have specimens, I believe she can give you a description in each case. She is not a person to ~~name~~ have a list of names in her head without knowing what they apply to. I find that all except a few of the ferns mentioned by us are identifiable in the new Hawaiian dictionary.

Our very warm aloha to you and ~~Ja~~

Sincerely

Edmund Hardy

Feb. 28, 1960.

Editor, Hon. Advertiser:

After reading the letter of Emma Lyons Doyle in this morning's Sunday Advertiser, I herewith take the liberty of enclosing a clipping of a book review I published in the Hilo Tribune-Herald February 18. If your readers are not interested in the District of Kau, they might be in the following observation, to quote:

"Reading the Polynesian Family System in Ka-'U, Hawai'i' leaves the reviewer with two impressions:

First, the immense value of such timely collaboration between 'haole' anthropologists and 'kamaaina' seer. The study is truly based on the 'unwritten literature' locked in the best minds of the older Hawaiians, literature that will be forever lost as they join their 'aumakua' forebears Beyond.

Secondly, the pathetic and truly frightening change that has come to this fascinating Paradise of the Pacific since its 'haole' discovery by Captain Cook, about fifteen centuries after its initial discovery by the Polynesians.

The Hawaiians are losing their culture, even the most delightful and useful phases, to that of Caucasian and Oriental immigrants.

Our Hawaiian mountains are fast becoming poor imitations of Oregon with evergreens, and Australia with Eucalyptus, casuarina and paperbark; our foothills, overrun with thriving exotic weeds, already resemble horrid wastes of almost any part of the World; our steep canyons are being denuded into barren pastures by feral goats and mouflon; our plains are being transformed into drab copies of India with axis deer, or Wyoming with antelope; and our once beautiful shores and beaches are being crowded out toward the Pacific by Miami-like canyons of cement, glass and aluminum.

How fortunate we older residents are to have known Hawaiians more like they are described in the Handy-Pukui study, and to have known the Hawaiian countryside before its phenomenal transformation into something hardly typical of Hawaii."

Author, Flora Haw.

ESTABLISHED 1882
DAILY AND SUNDAY

Honolulu Star-Bulletin

HONOLULU 2, HAWAII, U.S.A.

POST OFFICE BOX 3080
TELEGRAPHIC ADDRESS: "STARBUL"

March 1, 1960

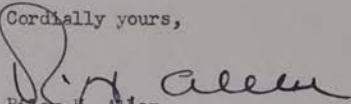
Dr. Otto Degener
68-617 Crozier Drive
Waiialua, Oahu, Hawaii

Dear Dr. Degener:

Thank you for sending me a copy of your review of "The Polynesian Family System in Ka-'U, Hawai'i." We can use some of it though it is far too long for our very limited space -- we receive a great many books for review.

I am returning the tear sheet from the Hilo Tribune-Herald which you thoughtfully sent me.

Cordially yours,


Riley H. Allen
Editor

RHA:TMP
Enclosure

March 17, 1960

Dear Otto:

Your review of the book on Ka-u Fa'atolu is very much appreciated. I really care more about its being read by subscribers to the Hilo-Tribune Herald than of the Honolulu papers, because they will be more interested in Ka-u, and presumably do not read the publicity furnished into Honolulu papers by the Bishop Museum. I think that the reason the Advertiser did not print your review is probably because they have some one whose job it is to report Bishop Museum news, who, since this book is a New Zealand publication, did not report it. B.M. is very busy tooting its own horn!

I wonder if you have considered asking Will Meinecke to collaborate with you when you go to collect in Ka-u. He is really passionately devoted to scientific study, has a remarkable knowledge of Hawaiian natural history, and would, I feel sure, want you and Isa to stay with him if you visit Ka-u. He has a quiet old house with plenty of room. Last summer he just turned over his car and his house to us. His father and mother were both Germans. As a guide in Ka-u district he is incomparable. That is terrain in which one needs a guide, and one who is a truly intelligent Kamaaina is truly a treasure. William H. Meinecke, 5/8 8, Waiohina Naalehu, Hawaii.

If Isa could be with us here today she would think she was back in north Germany: it is snowing hard - 8 inches predicted. How we wish we were at Punalu'u!

FOLD FLAPS BEFORE MOISTENING ADHESIVE

AEROGRAMME

By Air Mail · Par Avion



Dr. O. Degener,

Waialua,

O A H U,

Hawaii,

U.S.A.

SECOND FOLD HERE

SENDER'S NAME AND ADDRESS.

Dr. H. J. Eichler,
State Herbarium of South Australia,
Botanic Garden,
North Terrace,
ADELAIDE. S. AUST.

NO TAPE OR STICKER MAY BE ATTACHED.

IF ANYTHING IS ENCLOSED AEROGRAMME WILL BE SENT BY ORDINARY MAIL.

HERE

STATE HERBARIUM OF SOUTH AUSTRALIA

A d e l a i d e

12th July, 1960

Dr. O. Degener,
Waialua,
OAHU, Hawaii, U.S.A.

Dear Dr. Degener,

I have just received your letter of July 7 for which I wish to thank you very much. I had no letter which I did not answer, the last I received from you is dated July 7, 1959. Either my answer of 18th August, 1959 has been lost or another letter from you did not reach me.

I do not think that there is any danger of someone misusing my manuscript in the New York Botanic Garden, but as you suggest, I shall not further distribute the preliminary notes and hope very much to obtain more material in order to reach finality and to make the notes publishable.

It was interesting to hear that the building of the herbarium in New York is "bursting at the seams". We are in similar trouble and a new building is being considered. There is, however, not the necessary understanding to listen to my warnings, and I fear if the new building be realized it will be done on the wrong scale.

Your drive through the Rockies must have been enjoyable. My wife and I spent our last holidays Volkswagen-touring in Tasmania and enjoyed this country very much.

Thank you for Miss Greenwell's address and writing to her of my desire. I am writing to her by same mail.

I will be very grateful if you will check the place names. I am not surprised that many of my names were wrong. Does there exist a good map of the islands where I would be able to find many of the places? (Shell Co.?). I would be interested to have some knowledge of the distribution of the Ranunculi.

I hope you suffered no damage during the recent earth tremors and tidal waves.

I trust Mrs. Degener's operation was successful and that she will recover soon and enjoy good health.

With kind regards,
Yours sincerely,

H. G. Linder

Aug. 1, 1960.

Dear Dr. Eichler:

I have your July 12 letter before me. I do not quite remember what I wrote you so do please forgive me if I should repeat myself.

The N.Y. Bot. Garden herbarium, due to the building operations, was practically closed so we do not know what local species of *R.*, are stored there. But, thanks to this same upheaval, quite a number of lost boxes of my own herbarium specimens turned up out of storage. Without looking at the contents, I mailed everything from N.Y., to the Museum. Recently, I pored over the contents and am overjoyed to find some of my Haw. *R.*, specimens among the lot.

As you know, we live in the country about 35 miles distant from the Museum in Honolulu where these herb. specimens are now located. Due to Mrs. Degener's present successful but slow convalescence, and getting some fascicles of Fl. Haw. Book 6 printed, I cannot get at these plants to label and ship to you right away. But they should be in the mails in a month or so.

In quickly looking through the *R.* sheets, I believe I saw reference to the actual specimens that had been drawn for the zincos, records that I have not had on hand for 20 or so years and about which I had become hazy. I am herewith mailing you the drawing which I imagine will always be suitable for a habit sketch. You, then, from the authentic specimen, if you wish, might add pertinent details, magnifications, etc., before we would go to press anew.

I can give you bibliographic references to *R.* in Polynesia if you want them (and if I have not already done so).

I have terribly detailed maps of all islands, but these maps are terribly bulky & heavy to send through the mails. I can do so, if you wish, but fear it would be something of a waste of money. Anyway, remember that our *R.* are only at higher elevations and, as huge areas have now been botanically (and otherwise) explored, the few spots where some botanist has collected *R.*, does not mean that areas on same island at same elevation are devoid of *R.*

Do you know of the plant artist Mr. Frank Dandridge, P.O. Box 109, City, Canberra, A.C.T.? If Mrs. Degener & I and you should publish jointly on the Haw. *R.*, I can contribute \$10 from National Science Foundation funds for each species that Mr. Dandridge (or someone else) would

for us. Of course Mrs Degener & I have only casually looked at local B., and not studied them exhaustively as you are doing it. We have the idea that there are two very distinct endemic species and that ancient hybridization with later isolation has given rise to other taxa well worth recording. Could perhaps some of you novelties be reduced to varietal status? Or should it be stated that some are stronger species than others?

Shall I mail you the zincs made from the enclosed drawing?

You will hear from us soon again.

(Specimen illustrated on following page)
(Aided by National Science Foundation)
(Degree & Degree, date)

erroneous.

Local Range: Collected by Hillebrand at "Kamapali, west Maui"; by Degener in 1927 on a dry mountain near Waipae. Nothing is known of this variety from Lanai. The Lanai record may be

Type Locality: "W. Maui, Lanai!"

10-35 mm. long cymes. Styles connate at base.

Leaves hardly repand but subentire. Cyathia singly disposed, or few in

Chamaesyce arnotiana var. integrifolia comb. nov.

15: 234, 1940

Euphorbia arnotiana var. integrifolia St. John in Occas. Pap. B. P. Bishop Mus.

1938

Euphorbia Hooker var. integrifolia sensu Sherff in Ann. Mo. Bot. Gard. 25: 61.

1888.

CHAMAESYCE ARNOTIANA var. INTEGRIFOLIA (Hillebr.)

Deg. & Deg.

leaves and in having its styles united and not free at the base:

The following variety differs in bearing almost entirely

Local Range: A greasy shrub of open, wooded regions known only from

Type Locality: "Maui, Sandwichean"

and variously shaped but somewhat more often with transverse pits.

grayish to brownish-red, 1.2-1.5 mm. long, scrobiculate with reticulate ridges,

styles distinct to base, their short branches thickened. Seeds ovate-tetragonal,

erect, nodding, finally glabrous, 2.2-2.8 mm. tall; cocci slightly carinate;

triangular-ovate, truncate; stamens more often not exerted. Capsule

at throat, 1-2 mm. long; nectaries 4 or even 5, transversely ovate; lobes

cyathia at their ends. Involucres minute, turbinate, outwardly glabrous, bearded

bracteate with pairs of minute rounded scarious bracts but bearing only 1-3

1 to a node and arising alternately on each side of stem; cyme branches multi-

about 1-2 mm. long or several in simple or compound cymes, these commonly

borne in the axils and toward the apex of the branchlet, single on pedicels

lateral veins inconspicuous; stipular structure a low margin-like ridge. Cyathia

concave to subcordate and often oblique, at margin more or less repand-dentate-

ovate or rarely suborbicular, at apex acute or more rarely subobtusate; blade

mostly 2-4 cm. long. Leaves with a 2-4 mm. long subspiral petiole; blade

with slender subhirsuteous flexuous weakly nodose branches having internodes

Glabrous shrub 9 to rarely 18 dm. high with conspicuous cauline nodes and

Chamaesyce arnotiana comb. nov.

Euphorbia Hooker Sherff in Ann. Mo. Bot. Gard. 25: 59, 1938.

Chamaesyce Hooker & Degener, Fl. Haw. 190: Chama.

Dec. 9, 1936.

Chamaesyce Hooker J. C. Arthur in Torr. 22: 30, 1922.

Euphorbia coriariaefolia Boiss. mos. in herb. Petrop. in syn. sub. E. Hooker

in DC. Prodr. 15 (2): 12, 1862.

1860.

Anthophyllum virgatum Kl. & Garcke; Kl. in Naturf. Pflanzenk. Triococae 36.

Euphorbia Hooker Steud. Nom. ed. 2: 612, 1840.

Euphorbia arnotiana Endl. Fl. Sucl. No. 1564, p. 184, 1836.

Not Euphorbia myrsinites L. Sp. Pl. ed. 2, 653, 1762.

Euphorbia myrsinites Hook. & Arn. Bot. Beech. 95, 1832.

ARNOTT SPURGE: KOKO, AKOKO

CHAMAESYCE ARNOTIANA (Endl.) Deg. & Deg.

EUPHORBIACEAE

SPURGE FAMILY

Genus: Chamaesyce
Species: Arnotiana

Family: 190

FLORA HAWAIIENSIS

STATE HERBARIUM OF SOUTH AUSTRALIA

A d e l a i d e

23rd May, 1961

Dr. O. Degener,
Waialua,
Oahu. Hawaii, U.S.A.

Dear Dr. Degener,

A long time ago I received in very good condition a parcel with interesting Ranunculi from you. Your card recently reminded me again of them, but I believed I had reported already on them to you. When searching through my correspondence, I found a now antiquated letter draft which has not been finally sent and I hope you will accept my apologies. My letter read as follows:

"I have just received the parcel with excellent Ranunculus specimens from you. I looked quickly through them. They all are correctly named as far as I saw at first glance, and I am pleased to have the opportunity of studying a few more flowers to ascertain the nectary scale characters which I used in my key. I did not include R. muricatus as I had seen no material of this species from Hawaii previously. The two specimens of yours are correctly determined, and this introduction is satisfactorily ascertained. I notice that you had printed on your labels "Ex Herbarium Otto Degener". Does that mean that I may retain the specimens? I would, of course, be very glad to have additional material to what you have already sent.

In your letter of 1st August, for which I apparently missed thanking you, you offer to send me bibliographic references to Ranunculi in Polynesia. I would be very interested to receive all those which are not mentioned in my manuscript.

I do not know Mr. Frank Dandridge, Canberra, and it would be difficult for me to supervise his drawings. I do not know of an able illustrator at Adelaide. These people are rare in white-coloured countries. We have an artist employed at the Botanic Garden who makes sometimes plant drawings for the Botanic Garden. They are artistically very well done, but lack scientific details due to lack of supervision. He might possibly be able and willing to do some drawings for us.

As I so far can judge from the little material I have seen from New York and the few specimens I recollect from European herbaria, there are definitely two quite distinct endemic species in Hawaii, Ranunculus muiensis and R. hawaiiensis. There is a third which may have originated by ancient hybridization. The fourth species which I mentioned is quite distinct and so far only known from one collection. It is either a fourth native species or an introduction which I am not yet able to place. The other species are, of course, recent introductions.

I have received the zinc from your drawing of R. hawaiiensis which looks very natural. Only the veins on the petals possibly would need correction and it might be wise to express more clearly that the sepals are reflexed."

Now I am in great pressure in preparing for a trip to Kew where I shall stay for twelve months as Australian Botanical Liaison Officer. My wife and I will be leaving on 1st June. So you will understand if I now am sending you only my best wishes.

With kind regards, also to Mrs. Degener,

Yours sincerely,

H. G. Degener

FIRST FOLD HERE

Oversas Service
AEROGamme
By Air Mail - Par Avion



Dr. O. Degener,
Waialeale,
KAHU.

HAWAII.

U.S.A.

SECOND FOLD HERE

SENDER'S NAME AND ADDRESS.

Dr. H. J. Eichler,
State Herbarium of South Australia,
Botanic Garden,
North Terrace,
ADELAIDE.

S. AUST.

IF ANYTHING IS ENCLOSED OR ANY TAPE OR STICKER ATTACHED, THIS FORM
MUST BEAR POSTAGE AT THE RATE FOR AIR MAIL LETTERS.

1000 177

Waialua, Oahu, Hawaii 96791.
May 17, 1971.

Dear Harold & Alice:

Ira & I have your satisfying May 12 postal, and likewise have received your bill. Enclosed is cheque for latter.

I don't understand why Andy would not be a good lecturer - there is such a thing as having the gift of gab, yet not saying anything in a torrent of words. Locally, we have come across so many graduates of our Normal School who have been taught how to teach yet were never taught they subject matter they were assigned to teach. For lack of knowledge, these fish out of water tend to circulate plain verbal rubbish. FIRST, know your Science, says I.

Enclosed is another effusion off our chests and breasts struck off on our elite typewriter for acceptance or refusal by Cryptologia. Having been something of a persona non grata for near half a Century at the local institution - something of a tail at Harvard, not a IV, offswinging - I have given up hunting for our new lovely Sophora. I guess should I guess, the specimens might be more easily found. Besides we are mentioning this novelty, with two modachromes. At our childless age, we don't care if the engraver charges extra to enlarge the modachromes or fuses with them to get better definition. If this does not appear in print somewhere during my lifetime, I guess the photos will be lost forever.

As usual we can use 100 pounds.

Aloha,

November 6, 1962

Dear Otto and Isa:

Surely was good to hear from you. Don't forget I want one of those books just as soon as they are off the press. I have two of your books but haven't had time to get the index in place so that I can refer to it easily.

I am working with John Watkins of the Horticultural Department of the University of Florida on a series of books, the first one to be "Flowers of Latin America, Native and Exotic, for World Gardens." North America, Africa, Europe and the Eastern part of Asia and Pacific Islands are to be treated as the publisher suggests. We are trying desperately hard to get the Golden Books to do it like the Nature Guides of Zim's because an inexpensive illustrated book for beginners is what is necessary.

Sorry to hear about Isa's father, but hope by now that he has been able to throw away the cane.

Thank you for telling me about Mrs. Mitchell. I certainly will go to see her if I can ever get to Lakeland, but it is one of those places we don't go to very often. I am writing her, however, telling her to stop to see me in case she is in this area. All of this reminds me that I would like so much for you to stop and see my very dear friends, the C. K. Huangs, near Diamond Head. Their address is 101 Nawiliwili, Honolulu 16. She is a movie actress, was in "The Good Earth", "The Many Splendored Things" and several others. She does fascinating one-man shows and is one of the finest Christian women I know. C. K. is a great student of Mayan Ruins and world traveler. I am sure that Isa would be especially fond of Soc, and I know they would both enjoy knowing you. So, keep their address in the car and do stop in if you are in that area. They are both very good friends of Virginia Nelson, and I believe you met them when you were here.

I spent three months in the British Isles studying pen drawings this summer and drew 78 species of sub-tropical flowers in warmer parts of Southwest Britain, Ireland and Scotland. I have never seen as many sub-tropical flowers from around the world in any one spot as in Trecco on the Scilly Isles, even a grapefruit on the tree. And I saw bananas outside in four Irish gardens!

Ray joins in sending our best to you both.

Affectionately,

*are having Shaulengining
dinner with Va Nelson at Billie
the club - June has just had
her 4th child - They are living here
just bought the big 1516 G aluminum house across
lake from us for \$60,000 - will tear it down & build a
modern modern house*

Hunt Institute for Botanical Documentation



1964

Dear Otto and Isa

We are so glad to hear you are back home, and
look forward to having a good visit with you. We
shall try to see you at Honolulu some weekend -
will telephone first. We have no phone here. We
work every day at The Bishop Museum - Room 13,
Paki -

It will be good to see you

Sincerely, with aloha

Elizabeth & Edward Haudley

MELE KALIKIMAKA ME KA HAUOLI MAKAHIKI HOU

MERRY CHRISTMAS AND A HAPPY NEW YEAR

December, 1965

Dear *friends:*

Again we are wishing you a joyous Christmas and a good 1966, and we are eager to hear from you.

A year ago we took off for Mexico--our 9th trip there. This time we went via Corpus Christi, where we visited Kate's cousin and saw some of the whooping cranes at Aransas Wildlife Refuge. We crossed the border at Brownsville and headed down the east side of Mexico, which we had never seen before. We stopped at Kate's favorite hot spring, Taninul, at Tajin and several other archeological sites, and at the Archeological Museum in Jalapa. On this route, one formerly had to cross the rivers by ferry, but now bridges have been built in all but two places. From San Andreas Tuxtla, we crossed the isthmus to Tehuantepec, and then northward on the Pan-Am highway to Oaxaca, where we settled down for a month at Oaxaca Courts.

On our first Sunday, we and two friends left the warm, sunny valley for a trip up the mountains to the north, and were surprised to find the vegetation covered with snow and hoar frost.. This was at the time of the destructive winter storm at home. The little Renault couldn't take the steep, slippery grades. A man with a jeep picked us up and took us to the base of the peak, San Filipe, which we climbed. All of the Oaxaca Valley was spread out below. We then had to walk back to the car. At some 9,000 feet, we followed the ups and downs of the ridge for about 9 miles. This was almost too much for Margery, but Kate tripped along like a little "deer".

We then went to Puerto Escondido on the Pacific coast over an uncompleted road through the Sierra Madre mountains. We took all day for the 165-mile trip, and collected plants along the way. Puerto Escondido is a primitive fishing village at the head of a deep bay. The wide, extensive beach, the gently sloping shore, and the warm, quiet water provide a perfect place for walking, Hunting shells, and swimming. If it had fresh water and a better place to stay, it would be an ideal place to spend the winter, but, of course, then it would be over-run with tourists, as are Acapulco and Puerto Vallarta.

On the way back, the wheels of the car caught in deep sand, the edge of the road over a fill gave way, and we turned over three times into a canyon. The least said about this experience the better, but we were lucky. We landed right side up, the windows didn't break, and the doors didn't fly open. A truck took 16½ hours to get us back to Oaxaca. However, we had to abandon the car. It took three weeks for us to recover and to settle with the insurance company. We had to go to Mexico City to get the document which would let us out of the country without the car. This took 10 days. In between times, our stay there was highlighted by visits with friends, to the famous new Anthropological Museum and the Ballet Folklorico.

At home again at the end of February, we resumed our activities here, Kate with her work for the International Christian University in Japan, the garden and a trip to Ohio during the prettiest week of the spring, and Margery with her work for the Evanston Nature Center, The Illinois Nature Preserves Commission and the Nature Conservancy.

We spent a restful summer at our respective cottages in Wisconsin, Kate with her sister and Margery with guests most of the time. As usual, we watched the deer, the coons and the birds, and took trips along the woodsy roads. It was a cool summer so we did not have as much swimming as usual.

Now we are planning to go away for the winter--to a warm place. I wanted to go to New Zealand and Australia, but Kate thinks Arizona would be a good place to be. She want to swim.

We don't know when we'll get back to Hawaii - but
certainly some time. We loved our winter there.

We are going back to Mexico for January and then
to Arizona and California for February and March.

I have gotten so involved with this conservation work
that my botanical work is neglected

Best wishes

Margery and Kate

Dr. + Mrs. A. J. Cronquist
68-617 Cronquist Dr.
Marina, Calif.
Hawaii



10201
Cronquist
2308/Hawaii
M. Cronquist





FAR LANDS HOUSE

3414 HALCYON DRIVE, ALEXANDRIA 3, VIRGINIA, U.S.A.

16 July 1966

The Doctors Otto Degener
RR 1, Box 89
Waiialua, Oahu Island, Hawaii 96791

Dear Friends:

The purpose of this note is to request your collaboration in honoring our colleague and personal friend, Ed Handy, for his many accomplishments in the field of anthropology.

On the 22nd of September 1967, Ed Handy will have his 75th birthday. At that time he will have devoted half a century of his life to our professional field. It seems appropriate that those of us who are fond of Ed, and admire his professional work, should do something to demonstrate our appreciation of him. I have spoken to Mrs. Handy about it and she approves the plan. What I would propose to do would be to bring together a number of significant professional friends, such as yourselves, to develop a book in Ed's honor. The book would not be a collection of miscellaneous essays, but would indicate where anthropology in general -- and Polynesian studies in particular -- have come in the fifty years during which he has been associated with the field. We would present these to Ed at an appropriate dinner on 22 September 1967.

At this point, it would seem best to develop a monograph which would have two parts: the first on methodology and general concepts, and the second to be devoted to the present state of knowledge of Polynesian studies. To each of the potential contributors, I should like to offer the opportunity to contribute to either one or to both of these principal parts. The contribution to the first part would be a conceptual article, which would be a contribution to anthropological theory. The contribution to the second part would be a review article, indicating the present state of knowledge of some particularly appropriate facet of Polynesian studies, related to the authors own particular interest and competence.

I should very much appreciate knowing of your reaction to this proposal, and having from you any recommendations as to other of our colleagues who might be appropriately interested in contributing to this volume. Presently, apart from yourselves, I have considered asking Laura Thompson, Cora Du Bois, Kawena Pukui, Ernest Dodge, the son of Felix Keesing, Margaret Mead, Margaret Titcomb, Ruth Hanner, Harry Shapiro, Gordon McGregor, Harry Murray, Robert Suggs, David Kelley, and Robert Aitken. It will be good to hear from you.

Most Sincerely,

Donald S. Marshall

Sept. 10, 1966.

Dear Don:

In answer to your July 16 letter Isa & I herewith submit our "Contribution." We believe it of some practical value to non-botanists who approach botanists with queries.

We learned recently that Ned or Ed (names he detests and therefore not used by use) is presently not well. Of course, at 75, how many are? Even at my spring-chicken age of 67 I underwent a hernia operation.

We think the anthropological angle of his work is splendid; but not so the botanical. We note no voucher specimens of his in the Bishop Museum and, for some plants, we can only guess what he had in mind. Most scientific names he uses are those of Willebrand who left the Islands in 1871 when Botany was in the horse and buggy stage. I know you won't quite agree with us, but that is because you do not realize how Botany gets more refined year after year.

When will you be back in the Islands once again? We fly to Hawaii Oct. 5 to botanize for a couple of months.

Isa joins in aloha,

July 30, 1966.

Dear Don:

Issa & I have your July 16 letter and are contemplating a brief article which, however, does not apply to Ed personally but rather to many anthropologists and archaeologists in general. Our suggestion is that you read it, criticize it, and then perhaps delete it from the Ed. monograph.

We have been pretty busy of late: we just purchased a cottage and almost an acre of ground in the treefern-forest area near Kilauea. We can so much better botanize there thanks to innumerable jeep roads. These are scarce on Oahu, and to get to promising botanical areas here I would be obliged to hike miles. I can do so BUT I then suffer nasty leg cramps at night. It means simply that age is creeping up on me. By botanizing on Hawaii I would escape this symptom and, anyway, on that island Issa & I would get an entirely different batch of endemics. We would more or less live on Hawaii a couple of months to botanize; then return to live on Oahu to identify our catch with the aid of our own personal library here at home and with the aid of the Bishop Museum library & herbarium.

During our stay on Hawaii last May (when we snooped about for real estate), we met Violet Hansen (her post office is Volcano, Hawaii), who seems a superb local archaeologist and has tramped all over the lava flows to map sites. I should think you should ask her to write an article.

Enclosed is a book review that has never appeared outside the newspaper. Could this be used, somewhat amended by you?

Issa joins in aloha,

A Plea from Botanists to Anthropologists

Otto & Iss Degener

Numerous times during our botanical careers we have been approached by anthropologists, archaeologists, chemists and linguists with requests to identify plants involved in their particular researches. From the botanists' standpoint regarding such requests we wish to add some pertinent comments:

1. The researcher, often steeped in lore that looks into the past, finds a heavy war club in a grave or comes across a native song of long ago dealing with a wood that sinks in water. Some colonial on the spot may volunteer the information that the plant involved is "ironwood," whereupon the researcher goes to the nearest Flora at hand and consults the appendix. Depending upon which book chance has put into his hand, he will identify the wood of the club or of the poem as belonging to the genus Bumelia, Carpinus, Casuarina, Ostrya or about 30 others. The genus selected may not even extend to the region involved in his studies. Such inaccuracy certainly must detract from the value of the research. The aid of at least one botanist, preferably one specializing in the area, is certainly desirable. Personally, when we are unable to identify some exotic plant, we do not request the determination from only one botanical institution but preferably from several independently. Only if there is a consensus do we feel at ease.

2. The researcher usually spends much time and effort in the field investigating the use of some plant as medicine or household artifact and then, quite casually, plucks a leaf as sample for identification. To expect a botanist to spend his time attempting to identify such a scrap of vegetation is an imposition when the researcher could have devoted a few more minutes in the field to collect flowers and/or fruit - structures of prime diagnostic value. Properly labeled as to date, locality, size of

plant and any other outstanding characteristics, such material should be pressed between blotters or corrugated cardboards and dried, or preserved in formalin. Thus it would be a delight for the botanist to study.

Botany is an ever-advancing discipline, ever looking forward. Our present knowledge year after year is being revised and refined. The name the most astute botanist may give a plant today may, with an advance in knowledge, be obsolete tomorrow. For example, in the Hawaiian Islands, the hao was called Rauvolfia sandwicensis until monographic study disclosed that six other local species masqueraded under this same binomial! To save the possibility of the researcher's work becoming obsolete, he should deposit in some public herbarium a properly labeled voucher specimen. Any time in the future, the expert of that day can reinvestigate the precise specimen studied and verify whether the determination, in the light of advanced botanical knowledge, is correct or not. The kane writer practiced what he preaches. In 1940-41, botanizing in Fiji, he showed his day's catch of plants evenings to the Melanesian village elders for discussion around the festive awa bowl. The native lore was appended to the proper plant, each individually numbered, being made ready for drying and preservation. Some years later, these numbered plants were shipped to various experts for monographic treatment. In due time vernacular name, ^{scientific} name and native lore were assembled for publication as "Nutzpflanzen der Eingeborenen von Fidschi." 1.) The voucher specimens are available in leading botanical institutions for checking whenever the need should arise.

For years the writers knew of Dr. E.S. Craighill Handy from his and collaborators' publications, the result of painstakingly "picking the brains" of the few remaining Hawaiians still versed in their unwritten literature," and ^{expertly} analysing the data. Later, due to overlapping interests, they became casually acquainted. It was not until July 1954, however, that the writers became intimate friends with Dr. & Mrs. Handy when in-

vited to tour the Island of Maui with them. Everything was prepared for careful research. Dr. & Mrs. Handy interrogated Hawaiians about certain plants and their uses so far as native culture was involved, while the writers were prepared to collect and press the voucher specimens for later determination and deposit in the Marie C. Neel Herbarium in Honolulu. The ideal set-up came to naught due to illness caused by a drenching downpour in Keenae Valley. The association fortunately lasted long enough for the Handys to become familiar with some botanical procedures, and for the Degeners to become familiar with some anthropological ones.

- - - - -

- 1.) Mitt. Bot. Gart. u. Mus. Berlin-Dahlem. Bd.1, Heft 1:1-20. 1953.



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Scaevola

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POST CARD

Pat - Just got home this morning.
Evolution. Publ. by the Society for
the Study of Evolution - ed. by R.E.
Beer. Entomology Dept., University
of Kansas, Lawrence, Kansas

Yours -
M.D.

Congrats on getting a total of 29 mi.

K

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Mrs. J. J. Jones
Waialua,
Oahu,
96791

SCAEVOLA GAUDICHAUDII & S. MOLLIS
Otto & Ina Degener
Mokaleia Beach, Oahu, Hawaii

The December 16, 1966 copy of "Evolution" reached the north shore of the Island of Oahu recently in which Dr. George W. Gillett (pp. 506-516) discusses in detail, and carefully illustrates, "Hybridization and its Taxonomic Implications in Scaevola Gaudichaudiana Complex of the Hawaiian Islands." As our own publications with this complex began in June 30, 1932 and were conducted apparently independently of Dr. Gillett's researches, we herewith review them to show our early findings.

208
The two species involved are S. gaudichaudiana Cham., and S. mollis Hook. & Arn. Of the former we (Flora Hawaiiensis, Fam. 340, Dec. 27, 1957.) recognize the species itself as occurring on Oahu; with forma kauiensis Skottsb., as endemic to the Island of Kauai; with forma leucocarpa Skottsb., as endemic to Oahu "and occasionally intergrading with " the black-fruited species ~~itself~~; and with variety stenolithos Skottsb., endemic to the Waianae Range of Oahu. The Molokai and Lanai plants, following the monographer Skottsborg (Bishop Mus. Bull. 43:17-23, 1927.), we recognize as S. chawissoniana Gamd., sensu stricto and two varieties. As these hardly belong to our complex, we omit them here.

Regarding S. mollis, Degener & Greenwell (Fl. Haw., Nov. 1, 1947.) recognized S. mollis s.s., as occurring only on the Koolau Range of Oahu; while the variety albiflora Deg. & Greenwell is limited to the Waianae Range of the same island. Forma triloba St. John is an aberrant form known from a single plant discovered in 1939 in the Koolau Range and never observed again.

Scaevola kahanae Degener (ibid. June 14, 1933.) grew along the Kaham Ditch Trail, Koolau Range, Oahu. Though the author of this binomial at the time wrote that "it probably shows certain hybrid relationships to S. Gaudichaudiana Cham., and S. mollis Hook. & Arn.," we are now convinced it is merely a hybrid exhibiting chiefly S. gaudichaudiana features. We

join with Gillett (p. 515) that this is an example of contributing a "plethora of names" to our flora and that the specimens should have been designated simply as "S. gaudichaudiana X S. mollis."

As the Flora Hawaiiensis, Books 1 - 7, is being privately printed in a limited edition of 3,000 or less copies and is evidently not known to many writers and readers, we herewith copy pertinent statements regarding the "complex" printed Dec. 27, 1957. These verify, in many instances, Dr. Gillett's findings of about a decade later. Regarding S. gaudichaudiana S. S., we read:

"An ubiquitous, aggressive plant throughout the Koolau Range of Oahu, growing in open forests and glades above about 700 feet elevation with the far less common S. mollis Hook. & Arn. These two species repeatedly hybridize, some of the resulting crosses tending to maintain their characteristics for several generations. Others seem to split up into a diversity of shapes, or cross back into S. gaudichaudiana or S. mollis. The resulting swarm of hybrids has caused considerable nomenclatural confusion. For example, S. procera Millebr., is listed as occurring on Oahu in error by Skottsberg (Bull. B.P. Bishop Mus. 43:33. 1927.), he basing his findings upon Forbes No. 2215,0., "Oahu, Wahiawa, head gate trail," 1915. This plant, as well as Forbes Nos. 2211,0 and 2213,0, from the same region; and Hosaka No. 958 from Kipapa Gulch, 1933, likewise identified by Skottsberg as S. procera, are all hybrids in which S. mollis characters prevail except for a slightly longer inflorescence and less tomentum. S. procera, hence, is unknown from Oahu. S. cerasifolia f. tomentosa Skottsbg. (Acta Hort. Gothoburg. 15:501. 1944.), hardly worthy a name, is merely another hybrid, this time showing still closer affinity with S. mollis. S. cerasifolia Skottsbg. (Bull. B.P. Bishop Mus. 43:36. 1927.), typified by a plant from Pauoa Flats and said to be found also on Konahuanui and Punaluu, on the other hand, are hybrids showing close affinity with S. gaudichaudiana.

S. kahanae Degener (Fl. Haw. 6/14/33), almost synonymous with Skottsb.'s S. cerasifolia and therefore hardly worth naming, is perhaps still closer; while Reck & Shaw, without number, collected on Kona Island in Sept. 1912, /~~266~~/ scarcely differs from true S. gaudichaudiana except for purple flow- /~~116~~/ ers. S. gaudichaudiana s.s., also occurs in the Waianae Range with the var. stenolithos Skottsb., mentioned below:"

Regarding S. gaudichaudiana var. stenolithos we wrote Dec. 27, 1957: "Known only from the Waianae Range of Oahu; plants labeled as this variety but coming from other islands, such as West Maui, we find are misidentified. This variety or possibly the species itself apparently hybridizes with S. mollis var. albiflora of the same mountain range to produce plants like Wilbur 597 (in error labeled as the Kauai or Molokai S. proserpa var. pseudomollis Skottsb., in the Bishop Museum by an unknown hand), "Waianae Range. Slope leading down into South Palawai Gulch. More or less E. /~~116~~/ side. 3 m. shrub. Flowers white, c. 2700 ft. 27, March 1948." The Wilb//ur specimen is mainly S. gaudichaudiana var. stenolithos with some influx of S. mollis var. albiflora; thus the slightly larger leaves are coarsely glabrate especially beneath, the twigs are pubescent, and the flower buds and leaf buds are pubescent as in S. mollis var. albiflora. The inflorescence is not constricted as in the latter variety, nor longer than the leaves as in S. gaudichaudiana var. stenolithos. It is about two-thirds the length of the leaves. The corolla tube is hairy, almost as much so as Webster 1450, evidently collected with Wilbur and perhaps coming from the very same shrub."

May 1, 1967.

96791

Prof. R.E. Beer, Editor,
"Evolution," Dept. of Ent.,
University of Kansas,
Lawrence, Kansas.

Dear Prof Beer:

Mrs. Dogenor & I received Evolution 20(4): 506-516. 1966, shortly and find that the author cites about 25 references in his bibliography yet omits all mention of us or our Flora Hawaiiensis in which we preceded him more or less in his own researches by several decades. Our Flora Haw., is available in the libraries of the University of Hawaii and the Bishop Museum, as well as being scattered here & there throughout the World. Dr. G. is a friend of ours and in his April 24 answer to our query if he had seen our paper he replied: "I did not cite specimens in that hybridization paper, other than my own specimens used for illustrations - - -."

Frankly and CONFIDENTIALLY the above is an explanation but hardly a valid one sufficient to ignore our findings which antedate his by so many years. To ignore precedent is just as unjust in Botany as in Entomology. For the sake of fairness, I hope you will publish the accompanying ms., in an early issue of Evolution.

If our "Flora Hawaiiensis or New Illustrated Flora of the Hawaiian Islands" is so little known, should we run an advertisement about it? The set, in its present incompleteness, comes to \$21.50. Could any Mainlander afford this?



UNIVERSITY OF HAWAII • HONOLULU, HAWAII 96822

DEPARTMENT OF BOTANY, 2450 CAMPUS ROAD

28 March, 1967

Dear Isa and Otto:

Many thanks for your most thoughtful note. I understand perfectly why it was most impossible for you to come to the Arboretum dedication. Actually, we had about as many people as we could handle in the rain (all proceedings had to be inside) and our parking problem was not a simple one!

Jean and I stopped by, rather impulsively, to say "Howdy!" on our way to a gathering a few houses down the beach from you a week ago Sunday, but alas you already had your hands full with guests and we postponed our visit until another day.

The International Biological Program committee proceedings came off very well and I really feel that something in the way of important progress will result from its work.

Did you know that Pieter van Royen is coming to the Bishop? I hope this will be a real boost for the herbarium, and it should be, for he is a very good man.

You must come to the Arboretum some day in the near future when the weather is good and see some of your old friends, besides myself including such celebrated items as Alsinodendron and Delissea. Now for heaven's sake don't read this as an inference that anything but the last two items are celebrated! I'm just a country clod trying to get along.

Enclosed is my recent paper on hybridization in Scaevola. Well, wouldn't you at least possibly agree that the illustrations are passable? (they are not mine).

Please be very careful about eating creamed fish. I had a run-in with that stuff at the tender age of 9, and have been wary ever since.

Very best regards,

George Gillet

96791

April 19, 1967.

Dear George:

We were sorry to miss the Manoa meeting. Bill Cash was here at the house and told us he had planned going. He got caught without raincoat or umbrella in his car, and would not make it to the building. We are glad the meeting was a success, anyway. It indicates the building's and the project's importance.

We are presently got back to normal. Iva had a benign Jakana-size thingamajig removed from her breast and Friday the stitches will be removed.

Your paper in "Evolution" interests us in two ways: First, that you should get the Bot. Dept., to purchase Degener's Flora Hawaiiensis, Books 1 - 6 (~~112.50~~) (\$21.50), and order Book 7 (\$10.50) ahead of complete printing. Your Dept., would then get the various fascicles as they are published officially. Right now we are correcting page proof - not gal - for one.

Secondly, you failed to notice my account of hybridization of the two species on both ranges of Oahu. This independent observation backs up the points you are making and we are publishing a couple of paragraphs to that effect. Write us the name and address of the "Evolution" editor so as to save us the trip to Honolulu. It would be more appropriate to publish in the same mag., I suppose.

Voucher specimens of our Hybrids plus reputed parents are pretty well scattered throughout the World - perhaps not in B.M., as to do so is often merely shipping coals ya Newcastle.

Please note that Haillawdia is a sphalm. The Frenchman's name was Railard and after we discovered that we uniformly described taxa thus.

It's high time the World with IBP will really do what I started to do without outside funds in 1922. At our age we will continue to plug along with our Flora Hawaiiensis, helping IBPers with herb. specimens.

We bought a jeep and are off for our Volcano home about middle of next month. Then when it gets real hot, we plan to tour Alaska for a month. We have never been there. We signed up with an ornithological group even though we are not particularly interested in the nesting hub its of the yellow-bellied sapsucker. Atleast such freaks should be like the Degener freaks & avoid the cities for the outdoors.

Hunt Institute for Botanical Documentation



UNIVERSITY OF HAWAII • HONOLULU, HAWAII 96822

DEPARTMENT OF BOTANY, 2450 CAMPUS ROAD

24 April, 1967

Dear Otto:

It is hoped that Isa is coming along well and is considerably better than normal for having been rid of unnecessary and troublesome whatever was gotten rid of. (I am pardonably proud of myself for having navigated that delicate subject without getting into a trap). Give Isa our very best and let us hope she stays in the best health.

Otto, I did not cite specimens in that hybridization paper, other than my own specimens used for illustrations (and these were mandatory, of course). Please do not feel that I overlooked your work in any way, because I didn't. Several people have spotted hybrids of *Scaevola* before, and far be it from me to infer that I am the only one who has! You did recognize hybridity in this group and you were quite correct in your observations and conclusions. In fact, it seems incredible that anyone would have disagreed with you, for the wild populations show this in unmistakable clarity. In my previous papers of this sort (on mainland material) I based my variation studies on herbarium specimens and of course cited all of the specimens. However, I have been criticized for not taking a population approach to this sort of study, so feeling that my critics probably had some good ideas, I used them and did this *Scaevola* work on a series of population samples. Certainly there are other populations showing hybridity, but I intended to take only a portion of the total. After all, one could run a good thing into the ground.

Otto, I did get the Department of Botany to purchase *Flora Hawaiiensis*, and they bought what was available a month or so after I arrived here. However, they should also buy Volume 7, and I will see that this is done.

The Editor of *EVOLUTION* is J. Knox Jones, Natural History Museum, The University of Kansas, Lawrence, Kansas. I am sure that he would be glad to have your account of hybridization in *Scaevola*.

Thanks, very much, for your information on Monsieur Railliard. This surely does change the spelling of our "*Raillardia*", but I am inclined to leave the pick and shovel work to the orthographical lawyers. After all, it is a joy to them, and why should I be a kill joy?

Yes, the IBP is on the right track, but it is a pity that it didn't get started 45 years ago.

Have fun on the Big Island, also on your trip to Alaska (I spent two years there once upon a time -- its a great country, particularly if you like dust and mosquitoes and are adept at sleeping during the day). But if you can catch the Mt. St. Elias Range in clear weather and bright sun it will be absolutely of unforgettable beauty.

Jean and David send best wishes along with mine.

Sincerely,

George Gillett
George Gillett

96791

(Address after May 15, 1967: Box 154, Volcano, Hawaii, 96785)

Dear Mr. Johnson:

I have your May 10 letter regarding Mrs. Degenor's & my article "Seacovola gaudichaudii and S. Mollis," in which you state "it will be reviewed as soon as is practicable."

Mrs. Degenor & I have written this article as a gentle protest to an article appearing in Vol. 20 of "Evolution," Dec. 16, 1966. The author of the latter duplicates to a large extent our previously published observations, cites 26 papers in his literature, and admits to us in writing he knows our publications yet ignores all citation of our findings as though his work is entirely original! Had he cited our work and "given credit where credit is due," we would not have written our brief article and mailed it to you for publication.

Please clarify what you mean that our article will be "reviewed." We desire no review of it but wish it printed in full. We also have no idea as to what you mean "as soon as is practicable." As our article, in a way, is a companion piece to Dr. Gillett's, we hope publication will not be delayed.

If "Evolution" intends to publish merely a summary of our ss., at some time in the distant future, such a plan is perfectly satisfactory to us. In that case, however, we should like to print our article as it stands elsewhere, and soon. "Phytologia," published in New Jersey, has no backlog of manuscripts as it publishes just as soon as sufficient articles have accumulated to fill an issue. "Evolution's" summary could then properly cite this longer article as having appeared in Phytologia.

It is too bad this awkward situation has developed.

Aloha,

Collaborator in Haw. Botany,
New York Botanical Garden.

EVOLUTION

Ralph G. Johnson, Editor
Department of the Geophysical Sciences
The University of Chicago
Chicago, Illinois 60637

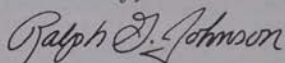
May 10, 1967

Dr. Otto Degener
Weisslue, Oahu
Hawaii 96791

Dear Dr. Degener:

This will acknowledge receipt of your manuscript entitled "Scaevola gaudichaudii and S. mollis", which has been forwarded to me by Dr. Beer. It will be reviewed as soon as is practicable.

Sincerely,



Ralph G. Johnson
Editor

1/15 ± / 68

N.B.

Dr. and Mrs. Otto Degener.
P.O.Box 154.
Volcano, Hawaii 96785.

Dear Friends;

Received your very nice letter today when Ann and I arrived home from the nursery, and just have to take the time to write and let you know we appreciate it very much.

Since our trip to your lovely island we have been too busy with many problems at the nursery - I suppose this happens to 'key' people as we are thought of in our position - but have had time during the day to think of our visit with you folks and of the many beautiful things we had the opportunity to see and the places we visited.

We shall always remember our day with you as the highlight of our trip because you treated us so fine and answered all of my questions and set me right with so many things that was bothering botanically. Have since obtained "Gardens of Hawaii" by Marie C. Neal., which will start my 1968 Series of books on Pacific Atolls and the plants therein. Am awaiting the release of your 7th. book with great anticipation so be sure and send a copy when ready. Also I would be very interested in obtaining a copy of Sister Margaret James., monograph of the genus Hibiscus of the Hawaiian Islands, as mentioned in your Book 6 on the page which describes Malvaceae youngianus. Have checked the Bishop Museum book lists and have not found the above listed, so am seeking your help.

Franz
Wassich

After our Monday with you and your wife and that very pleasant lunch which we want to thank you for again we spent the better part of Tuesday at the Foster Gardens. We met the Dr. War---(forgot how to spell his name) and he spent about two hours with me in his study. The gardens are wonderful and we spent at least four hours there taking pictures and seeing everything there was to see, but again hope that we may return and see some more.

The Dr. War--- seemed to give me the impression that you had talked to him before our arrival, if so, I thank you again for this introduction as it did pave the way for a most interesting conversation, in fact, he has asked me if I would be interested in a position when the new garden is started. This new garden to be devoted almost entirely to Hibiscus and Crotons and will materilize whithin about a year and half to two years. If this should come to pass and I were selected, I would certainly accept because this would give me an opportunity to work on the Hibiscus and collect all of the Hybrids in one location.

In the meantime, I have already started to ehlarge my Hibiscus files and will attempt to locate and obtain everything obtainable as a background to organization and classification for a complete file for the new garden layout. So if you come across any material or know where some of the old material is available, keep this in mind and let me know, as I am very seréous in this matter.

At the present time I hold a good position with the nursery, but thinking in the future I may not be able to keep the pace in another few years that it takes to keep going on this 'mainland' or maybe in three weeks on the island we learned there is another way to l i v e ?

All of our pictures have come out very well, except those which were taken just before it rained, seems there is some haze in the picture, only a few about 8 were hazed as we call it. Have not used them as yet for garden clubs, but will as soon as they are edited and all of them have the correct names, we are using your classification for them and will give them a byline 'Degener & Degener' bot. desc. used, I hope this will have your permission.

Must close now as it is late and there is much to accomplish tomorrow, must still think of the Islands and hope to be a part of them in the future. ALOHA for now.

1830 Princeton St.
Glendale, California 91204.

Ann and Franz.

Ann & Franz

Hunt Institute for Botanical Documentation

Nov 22nd 1968

Dear Otto and Isa: -

I have been so lazy about writing letters of late but I hope you will forgive me. I appreciated the interesting review of my dear Carl's career. Sometimes I mourn over how he worked so ^{most} diligently, all of his sojourn in his life. Mich. is a tourists state and it is getting more so than ever before. Carl wasn't like the hordes of people who seem to think life is a great time to spend it for just one good time after another. I know Carl was very happy with his work though. He was a scholar and could do & accomplish more than some others in his field. No one will ever know how I miss him & also Wimer. People are very nice to me & I'm thankful I'm comfortably situated. I was at the specialists office in Ft. Rapids yesterday. A friend drives my car. Dr. didn't wish to come back for 3 ~~weeks~~ months. This emphysema is very wreaking & I'm tired out most of my time but I enjoy taking people to dinner at the Garden Club etc. I'm invited out to dinner on Thursdays. I may sell out this spring. It is difficult for me to even

think of going into a home. It is impossible to get
any one to come & help even for love or money.
We had a beautiful fall & I enjoyed another
trip around Lake Superior. I saw Marquette
where I lived from 4 to 8 yrs. old. My father
bought some fairly large pictures of Marquette &
environs, taken by a town photographer & I took
them to the Marquette Historical Museum. They
were happy to get them. They were in very good shape
after all these yrs.

I wish to thank you for your kindness
in sending me the articles. I was very much pleas-
ed to have them and will be proud to give them.
I'm saving a few for friends with my x mas
greetings.

Hope all is well with you two.

We are having nice sunny weather right
now but the other weather will catch up
with us. Many of my friends make an exit
soon to Fla., Arizona & California. One of
my best friends is going to Bradenton, Fla.
next Mon. & will be gone until sometime in
April. Fla. would be too damp for me.

I must get to work.

Very Truly Yours,
Hern.

June 12th, 69

Dear Otto and Isa! - I have been negligent in
writing letters. Glad you got over your
proliferation. I used to call that ammonia
when a child. I was taken over to
Bloomington, Ill. on the 28th of March
by one of the faculty & his wife. They came
here on the 30th. It was for the inaugura-
tion of the new President of the Universi-
ty of Ill. Wesleyan U. With the toll &
free roads it doesn't take so long to
get places anymore. (Dr. Bertholf & wife
took just 4 hrs. to get to Evanston, Ill.
from here.) I enjoyed the inauguration
on the 22nd of May. ^{It} was just as thrilling also the luncheon.
^ ^{Speakers} all over 500. at the luncheon. Was coming
home on Mon. the 24th but got a very bad
stomach upset & had to stay over until
Wed. See I'm all off on my dates. ^{will correct} I had

half because they are ^{the} the other side of the Day-
room get the Sun in the A. M. but not
in the afternoon. I had so many daude-
lions it was a worry but with 4 large
bags of Scott's Feed & Feed. I seem to
be entirely rid of them. I have friends
& one who takes me grocerying. Of course
I'm no ingrate. It is so different now
without my dear companion. I make
a list but sometimes I'll forget something
then Earl would go down again without
a messenger. He was a wonderful companion.

He died on the 16th of May '66, & was buried the
day after his birthday which was on the 18th.
We had made plans for that birthday.

Miner's birthday is always remembered.
I send a check to Pine Rest Christian
Hospital every year, in memory of his death.

He was there just 5 weeks. Gave them his 2 boxes
Dennings' wheelchairs, made in California ^{very good} & ^{not bad}.

^{II}
Some X-rays at the hospital as I had 2 more
spells with my stomach. X-rays came out
perfect. I think it is mostly my nerves.
I like company but it is a task. I took
the Bertholds out to dinner but was ill
in the A. M. when I had to get three back
fast. I have planned to go to the Garden
Club to-^{up} to a beautiful home high
above the Thornapple River. Friends will
take me. It is heaven there, the river turns
there & it is always bubbling. An island
is across the way & they excel in roses
& have beautiful other flowers too. I take
most everyone who comes here to see
that place. Earl and I used to go there.
They took up my roses, in the spring come
to look after them again. They are just
perfectly beautiful right now. They grow

I have to get out or I would reminisce too
much. You must have had a wonderful
trip. I have ⁽²⁾ friends who visited on their
trip to those islands on the Matzen ^{skilling?} line.
You had more contact with the people
themselves with your old helper. I
have a picture of him & now he is mar-
ried with a family. My knees are
stiff & I can't like to eat the
way they do. The worst thing I have to
contend with is my sleeping, often have
to take a dope which the Dr. prescribes
then I have a hangover the next day.
Emphysema is a crippling disease &
I haven't any strength but I manage
thus far. I have a good man to take care of
my lawn & can trim the shrubbery etc.
He works for the Consumer's Power. They
are on strike & have been for 9 or 10 weeks. Our
plant voted against it. But - Love & my best,
Fern Rocette Sherck.

SECRETARIA DA AGRICULTURA
INSTITUTO DE BOTÂNICA
CAIXA POSTAL 4005 - SÃO PAULO
ESTADO DE SÃO PAULO - BRASIL

July 30, 1969.

N.º CPRN-377/69

Dr. D. Degener
Mokuleia Beach
WAIALUA - OAHU - HAWAII - U.S.A.

Dear Dr. Degener:

Thank you for your letter of July 15, giving us some news from your home State, and stating your desire to come to São Paulo some day. For this I can only say that, if you (you and Mrs. Degener, of course) ever come this way, Beulah and I would be delighted to have you as our guest. As you probably remember, we live in a Government house, inside the São Paulo Botanical Garden, and we keep our guest room always ready to receive our friends.

As for Yuncker's paper on new Piperaceae from Brazil, it would have been nice if we had included a biographical note on Dr. Yuncker, bringing his photograph. But it is still time. Mrs. Yuncker sent me, sometime ago, Dr. Yuncker's complete typescript on the Piperaceae of Brazil (a monograph) which we shall print, presently, as Bulletin of the Institute of Botany. We can, then, include a frontispiece of Dr. Yuncker and a page or two of his biography. I shall write to Mrs. Yuncker on this, asking her to supply the photograph as well as data on his biography. Thank you very much for remembering. If you have any interesting data on Dr. Yuncker's life, please send them to me.

Our lives are thriving as usual. Since my return from New York I have been appointed Coordinator for Natural Resources Research, of the State Department of Agriculture, and, as you can imagine, I have become 100% administrator, with no time left for my own research work...

Please give our best regards to Mrs. Degener. Beulah and I send you our best wishes. Aloha.

Sincerely,

Alcides

Alcides R. Teixeira
COORDENADOR

ART/rf.

SPELMAN COLLEGE
ATLANTA, GEORGIA 30314


22 IX '69

Dear Mr. Degener:

Steve Thomas of Rochester has written me regarding your book, "Naturalist's South Pacific Expedition", published in Honolulu in 1949. He suggested that I might purchase a copy from you. Are any still available and would it be possible for me to have one?

My wife and I spent the past December and January in the Fijies visiting most of the Islands and staying for two weeks on Moala with our son who is in the Peace Corp. He plans to go on for the Ph.D in physical anthropology and I would like to present him with a copy of your book if one is available.

Most sincerely,



J. D. Hatch, Professor
American Art History

JDH:w

Mr. Otto Degener
c/o The Bishop Museum
Honolulu, Hawaii



96791
Sept. 26, 1969.

Dear Prof. Hatch:

Mrs. Degener & I just received your letter. Do you know that we ate our last Christmas dinner sitting on the floor - we never know what to do with our legs - as guests of my 1940-41 Fiji assistant Timoci and his large family near Nadarivatu? Perhaps our paths crossed!

Our botanizing was marred when Mrs. Degener's Hong Kong 'flu, contracted in New Zealand, changed into pneumonia. She recuperated at Watah Lodge, Korotogo, near Sigatoka.

Regarding my Fiji book, I probably have over a hundred stuck away in camphor. I am over seventy and don't quite know how to advertise my wares properly to get rid of them.

I am mailing you the present copy. The cost is \$5.00, plus the postage you will notice the postman has affixed to the package for me. If you want two more copies, you can have all three for the wholesale price of \$10, plus postage. Should your son want 50 or so copies I would sell them to him at a still better price. I don't know how to approach the various Fiji bookstores.

s

I of course want my books read and do not wish keep them to light my funeral pyre eventually.

If you want three copies, I could mail the other two direct from here if you should give me the proper names & addresses.

Sa moce,

Hatch

Hatch

Title III

Cooperative Fine Arts Program • The Atlanta University Center Colleges
CLARK, MOREHOUSE, MORRIS BROWN AND SPELMAN COLLEGES, ATLANTA, GEORGIA

Office of the Administrator

2 XV '69

Dear Dr. Duggan

Excuse the laugh hand no typewriter at the
 Excuse the laugh hand - no typewriter at the
 apt & the secretarial staff
 apartment & the secretarial staff I work out here in

I make down here as advisor &
 the short-staffed I make down here as advisor - &
 also Administrator of this

also Administrator of this ^{set up.} ~~spoke~~ ^{set up.} ~~did not~~ ^{set up.}

Your book was forward - or ~~see~~ ^{see} - we here

Your book was forward - or ~~see~~ ^{see} - we here

We enjoyed the first 3 chapters - my present point
 we enjoyed the 1st three chapters - my present point
 of progress - Mrs. Archibald was a Washington friend.
 of progress. The Archibalds were Washington friends.
 of ours & we young (at that time, 1932) had many
 of ours & we young (at that time, 1932) had many
 a party in the house near Foxhall Road

a mingling party in the house near Foxhall Rd -
 then far out beyond Georgetown, & now well in.
 then far out beyond Georgetown, & now well in.

Yes, it is quite possible our paths crossed but

J. D. ROCKEFELLER, JR. FINE ARTS BUILDING, SPELMAN COLLEGE, ATLANTA, GEORGIA 30314
 FINANCED BY GRANTS FROM THE U. S. OFFICE OF EDUCATION

TELEPHONE 404 523-3510

(John Coulter's wife saw when Nat Coulter found in the late 20's!)

Hunt Institute for Botanical Documentation

Christmas season. We stayed two nights in the
Warrent Lodge in the 1st week of January.

I would like two more copies sent to my son
I had planned to give him one for Christmas ^{about} but now
think it better, as he loves Figs & Peace Corps in
more than 5 or 6 weeks. & I think he would enjoy reading
it while still there, but with what time I don't know

The second copy I'll have him give the P.C. office with
word of how much can be gotten & how to use it you.

You should have the remainder given to construction ends

After you have it. If you wish to have indicated a unit
(Hesperis, 195)

wholesale price for the P.C. plan is: 1/10 is Daniel L. Hatch

Peace Corps, Saver. Send the price to him other places.

Check to cover is enclosed.

\$15 (pd)

Approximately

^{second}
on Sunday thought.
I'd like to make sure our friends

The Rhododendrons in Saver have a copy (Do you have them?)

they would appreciate it - send me Dan's copies please, I think the whole thing will cover -

John Davis Hatch
(Hesperis, Mass.)

Hatch

Nov. 9, 1969.

Director,
Peace Corps,
Suva, Fiji.

Dear Sir:

The father of Mr. Daniel Hatch just ordered three copies of my book "Naturalist's South Pacific Expedition: Fiji" from me. Two I am mailing to Mr. Daniel Hatch at your address. As I do doubt he will still be in Suva by the time the books reach you, I am taking the liberty of mailing the third to Mr. John Hatch to turn over to his son on his arrival home.

As I understand it, though you must verify this with Mr. D. H., before his departure, one copy is to go to you or to some other Peace Corps Administrator as a gift and the other to "the Hedstrons." So, please, don't have this package of mine dash back to the US Mainland in error and then have it returned to Suva.

Mr. John Hatch wrote, suggesting I quote you a special price for my copies. They sell at \$5.00 each. My special price to the Peace Corps is 100 copies for \$250 plus shipping charges, AND a statement from the Peace Corps that I donated \$250 worth of books to you. I thus would get a \$250 tax exemption for having donated to an eleemosynary or similar branch of my Government. I would also of course maintain my regular price of \$5 per copy.

So much,

Otto Slegner

Lipochoa

Waialua, Oahu, Hawaii 96791.
Oct. 13, 1969.

Dear Miss Nakayama:

Many thanks for your informational letter of Oct. 5. Here is the "pickle" which is of course in better condition for drawing than the dry material coming from the same plant. You as artist will know if you should use the "pickle" only for the drawing, or "pickle" and parts of herbarium specimens. Funny that the ray florets in position are a bit lopsided - less at a portion of head (or disk). This seems to be the nature of the beast and not pure accident as you might think when looking at the head.

Don't you think you should let the "pickle" leach out in fresh water overnight so the formalin won't bother you?

In Flora Hawaiensis Family 344: Lipochoa, you can see how other species of the genus have been treated. The one you have now is close to *L. integrifolia* and the habit should be drawn natural size in a frame 2 1/2 X 3 1/2 cm., so that the printer will reduce it to 12 X 17 and the habit will be X 1/2. There really should be a ripe achene, or "seed," which my former artist Kwan Kee Park (now designing flower-fabrics in New York City) drew about ten yrs. ago.

I am glad the Daily Hortorium has no herbarium accession numbers for sheet a waste of time as such numbers never match up with numbers of duplicates of the same collection deposited in herbaria of sister institutions. No. 31,276 is just right for our purpose.

Being a New Yorker I envy you the wonderful fruit available at this season. In my College days I bought half a bushel of the very best apples for 35 cent.

I forgot to stress that every scrap, no matter how injured, of what you draw should be dried and filed away in the B.H., as anything the artist has touched is of historical value, the value increasing with time.

Aloha from Mrs. Degener & me - eat a Seckle pear for each of us.

Ch. Degener



Dr. Otto Degener

P. O. Box 154,

Volcano, Hawaii 96785

Nov. 27, 1969

Dear Otto:

Your letter of Nov. 22 received, along with the typescript. I am glad that you are now typing your papers as all the other authors contributing to PHYTOLOGIA do. I just can't afford the time to retype other authors' papers anymore. However, if you would use a heavily inked new black ribbon the papers would reproduce better. Also, if you would type the pages according to the size I ask then the publisher would not have to reduce each page and make TWO photographs -- one of the text and one of the running head, thus increasing cost. The standard size for typescript is 5 3/8 inches wide by 8 7/8 inches up-and-down. If made thus I can then add the running head to each page and one photograph by the printer does it. I'm expecting to issue Vol. 19, no. 5, about Dec. 15, if a 40-page paper from Dr. Simpson of Field Mus. arrives as promised.

all best wishes! As ever, *Harold*

SCX 5-30
100-100000

100-100000



Dominican Republic
botanist

Dear friends:

Dios bendiga su Navidad

con dicha y bienestar. and

best wishes along with
health and happiness

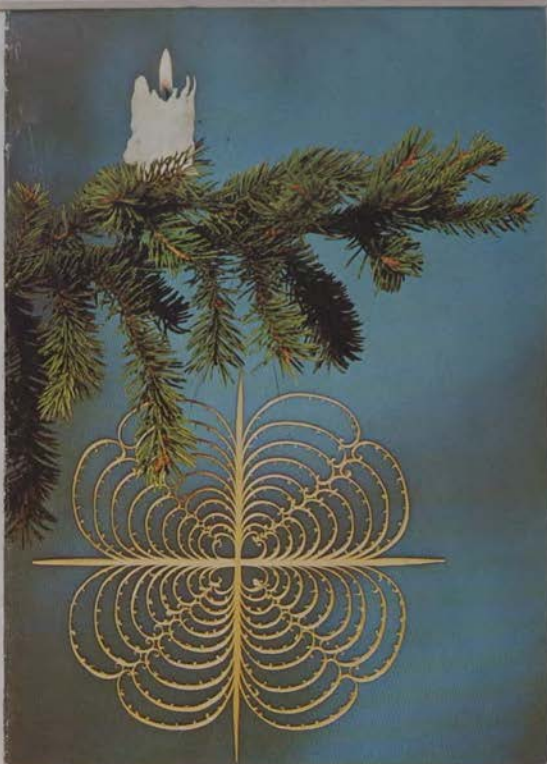
from

Dr. and Mrs. J. M. J.

N. H. 25792



PELASTAKAA LAPSET ry.



HYVÄÄ JOULUA

ja

ONNELLISTA UUTTA VUOTTA

Joe & Liisa Kivinen

Mäkelin

REVIEW

Otto & Isa Degener

Having looked over the border into the clean, pine- and birch-covered hills and mountains of Finland from northern Sweden some years ago, one of the reviewers can understand how Dr. Yrjö Mäkinen (*) would be enraptured by his stay among the sun-scorched lava fields and the jungle-covered terrain of the Hawaiian Archipelago. His enthusiasm is expressed in his "Havaijin kasvistosta ja kasvillisuudesta" [On the Flora and Vegetation of the Hawaiian Islands], appearing in Eripainen. Luonnon Tutkija 72 (3): 65-81. 1968.

The article interestingly describes the Hawaiian Islands within the scope of the title, and will undoubtedly arouse the envy of many European readers to visit this Paradise. The reviewers would suggest that they do so before "progress" and before "conservation", so often locally confused with exploitation, exterminate still more of the precious endemic biota.

Some obvious typographical errors should be corrected to read (pages 69, 76) *Sadleria*, (69) *Jacquemontia*, (69) *D. acroptium*, (69) *S. sericea* var. *fauriei*, (71) *P. sandwicensis*, (74) *Oreobolus*, (76) *A. rhipidoneuron*, and (76) *P. ternifolia*. Some genera we, unlike many others, prefer to "split", thus getting such unfamiliar binomials as (77) *Psilorrhiza glauca*, (77) *Vachellia farnesiana* and (71, 78) *Chamaesyce* spp. Some binomials used we should like to see changed or modified, such as: (69) *Ipomoea pes-caprae* to *I. p. ssp. brasiliensis*, (69) *Vitex trifoliata* to *V. ovata*, (69, 78) *Digitaria henryi* to *D. adscendens*, (69) *Chenopodium sandwicense* to *C. oahuense*, (70) *Pandanus* sp. to *P. (probably) douglasii*, (71) *Alyxia olivaeformis* to *A. oliviformis*, (71) *Perrottetia sandwicensis* to *P. sandwicensis*, (72) *Lycopodium cernuum* to *L. c. var. crassifolium*, (73) *Psilotum complanatum* to *P. c. forma fiesbergii*, (73) *Mariscus angustifolius* to *Machaerina angustifolia*, (74) *Psilotum nudum* to *P. n. var. oahuense*, (74) *Luzula campestris* var. *hawaiiensis* to *L. h.*, (75) *Neurophyllodes tridentatum* to *N. tridens*, (76) *Pellaea tenuifolia* to *P. ternifolia*, (77) *Ipomoea alba* to *Calonyction aculeatum*, (77) *Ipomoea coerules* to *I. indica*?, (77) *Lantana camara* to *L. c. var. aculeata*, (77, 78) *Tricholaena repens* to *Rhynchosyris* f., (77) *Setaria lutescens* to *S. geniculata*, (77) *Melaleuca leucadendron* to *M. quinquerivis*, (77) *Araucaria excelsa* to *A. heterophylla*, (78) *Chloris inflata* to *C. barbata*, and (78) *Panicum purpurascens* to *Brachiaria mutica*. We do not wish to imply that we consider all the above binomials used in the article wrong — there is opportunity for quibbling. We simply prefer the alternate ones we

are here suggesting.

Dr. Mäkinen expresses his belief that "The present number of native species may be around 2500" in the Hawaiian Archipelago, a figure commonly held by many workers. We believe this estimate, even for the year 1968, far too low.

In the early 1930s one of us devoted a few hours to estimating very roughly how many feet of bookshelf an illustrated Hawaiian Flora might occupy. He counted the number of species in certain genera recently monographed by such specialists as Hitchcock, Rock, Sherff, Skottsberg and Yunker. Then he counted the number of species for the same genera appearing in Hillebrand's "Flora of the Hawaiian Islands", published in 1888. The entire Flora contained close to 1,000 Ferns and Flowering Plants. As the increase since 1888 for most of these "spot-check" genera was tremendous, he assumed the remaining genera in the Hawaiian flora, if similarly monographed, would very likely show a similar increase.

After consulting such literature, he next studied available topographic maps of the various islands from Miihau to Hawaii. Having botanized on the major ones he estimated the botanical No Man's Land on each, areas from which neither Hillebrand nor the later specialists had ever received specimens. He knew the flora of Kohoolawe, even though much of the top soil had blown away since the introduction of herbivores some endemics must have survived, was completely unknown; that of Miihau practically unknown; and the knowledge of the flora of Lanai most fragmentary. Regarding Kauai, the Kokee region mauka of Waimea Canyon was moderately well known, but little else of that ancient island deeply cut into valleys. Regarding Oahu, areas mauka of Honolulu and the summits of Kaala were revealing their botanical riches, but most of the Waiānae and Koolau Ranges' flora was still not well known. Remember that to this day, due to the treacherously steep ridges, most workers botanize streambeds up to the first difficult ledges and cliffs or along the relatively safe knife edges of lateral ridges. The tapestry forests along the precipitous slopes are generally ignored of their wealth of peculiar endemics. Proof of this statement are the Degener & Hatheway voucher specimens deposited in leading botanical institutions of rarities from such risky field trips taken even near Honolulu.

Knowing how localized many Hawaiian taxa are in their distribution and realizing the tremendous areas of unexplored terrain, the reviewer did not estimate the number of native species in the early 1930s at around 2,500 but near ten times that figure.

Since that time, unfortunately, the holocaust of the endemic biota has been progressing at a tremendous pace (**) — axis deer even now with a more enlightened public have quietly been introduced to the Island of Hawaii. Though the native flora numbers presently far above "around 2500" species, it may soon decline to this trivial figure estimated by Dr. Mäkinen if conservationists of the World fail to act constructively.

(*) Dr. Yrjö Mäkinen, accompanied by Mrs. Mäkinen, resided in the Hawaiian Islands from September 1, 1965, to September 5, 1966. Though Docent in Botany at the University of Turku, Finland, he was on leave to accept a National Science Foundation grant, conducting research officially as Assistant Horticulturist at the University of Hawaii and as Visiting Professor at the Bernice Pauahi Bishop Museum. He is presently Professor of Botany, University of Turku.

(**) According to the Honolulu Star-Bulletin of August 28, 1969, the 40 blacktail deer introduced from Canada in 1961 have multiplied steadily until there are at least 400 in the Kokee area of Kauai.

NOTICE

Otto & Isa Degener
address: Waiialua, Oahu, Hawaii 96791

The following notice appeared in *Torrey* 33: 158, December 27, 1933:

AN OPPORTUNITY TO COOPERATE IN THE STUDY
OF HAWAIIAN PLANTS!

Because of the unique geographical position of the Hawaiian Islands, the writer ten years ago realized that the existence of a complete, illustrated Hawaiian flora would be of considerable scientific interest and value. As no work of this kind has ever been written—few people are aware that vast areas on many of the larger islands are even now botanically almost unknown—he resolved to attempt this task himself. Meeting with some local opposition and relieved of all teaching duties, he has been able to concentrate since 1927 on the collecting and studying of Hawaiian Vascular Plants. The resulting herbarium, now stored at the New York Botanical Garden, comprises about 40,000 specimens. The writer wishes to communicate with botanists who are interested in some of the Hawaiian genera represented and who may desire to aid in their study. The result of such studies would be finally embodied in the "*Flora Hawaiiensis*" or "New Illustrated Flora of the Hawaiian Islands." Address Otto Degener, Care New York Botanical Garden, Bronx Park, New York.

The writers wish to revise the above notice by inviting collaborators to publish jointly in loose-leaf format select Pteridophytes and Phanerogams in their *Flora Hawaiiensis*, and other groups of plants in their *Flora Hawaiiana*.

NEW ILLUSTRATED HAWAIIAN FLORA

(Flora Hawaiiensis and Flora Hawaiiana)

by

Otto Degener, Sc. D.

Botanist, University of Hawaii, 1925-27

Collaborator in Hawaiian Botany, New York Botanical Garden, 1935 -
Botanist, Archbold "Cheng Ho" Expedition, 1940-41, and codiscoverer of
the new Fijian plant family Degeneriaceae
and

Isa Degener, Dr. Rer. Nat.

Uniquely bound loose-leaf volumes profusely illustrating and describing scientifically endemic, native and cultivated plants growing in the Hawaiian Archipelago. Here are the authoritative books giving you the plant's correct scientific and English names, native home, distribution, present and former uses and other facts of interest. Moreover, as many of the introduced species are found elsewhere in warm regions, this work is useful throughout the tropics.

Read about local botanists, Marrattia the mulesfoot fern, Gleicheniaceae, Sadleria and Cibotium treeferns, meandering-fronded Toppingia, lycopods, Psilotum, grasses, sedges, Spanish moss and auto cushions, Tacca and calico frocks, a runaway orchid, Curcuma or turmeric, Batis to lay the dust, 4 o'clock face powder, cherimoya, Peperomia, awa, Pipturus, Santalum, Mistletoe, Phytolacca, Portulacca with blue seeds, Schiedea the endemic chickweed, endemic strawberry, endemic legumes, Clitoria and blue rice, wiliwili and surfboard, mahogany, Pelea and mokihana, Chamaisyce spurge, Litchi, endemic cotton, Kokia the missing link, endemic Hibiscus, Thespesia and calabash, endemic begonia genus Hillebrandia, mangroves, dayblooming cereus, various eugenias, native aralia genera, endemic Sanicula, Vaccinium and oheloberry, nuxvomica relative Labordia, endemic Rauwolfia and reserpine, naturalized and endemic morning-glories, endemic mint genera, Myoporum or false sandalwood, confused gouldias, Trematolobelia the endemic saltshaker, bird-pollinated Clermontia, endemic Bidens or kokoolau tea, and relatives of the American Madia such as Railliardia and silverswords galore all described with full-page plates.

New Illustrated Flora Hawaiian Island, Vols. 1-4, have been sold out, but a slightly revised and cheaper edition in a single inferior hard cover is available.

1192 pages including 450 plates \$10
Ibid., Vol. 5, 442 pages, 127 plates, 1946-57, bds \$10
Ibid., Vol. 6, 534 pages, 176 plates, 1957-63, bds \$10
Ibid., Vol. 7, in preparation.

For the above books write: Drs. Degener, P.O. Box 154, Volcano, Hawaii 96785, U.S.A.

IN MEMORIAM

At time of writing the State, under Governorship of John A. Burns and Chairman Sumao Kido of Board of Land and Natural Resources, plans the introduction of the Indian axis deer to the Island of Hawaii. Such a foolhardy act would hasten the extermination of the endemic biota.

PLANTS OF HAWAII NATIONAL PARK
ILLUSTRATIVE OF
PLANTS AND CUSTOMS OF THE SOUTH SEAS

By OTTO DEGENER, B.S. M.S.

Naturalist, Hawaii National Park, 1929
Collaborator in Hawaiian Botany, New York Botanical Garden, 1935 —

A book of human interest emphasizing the culture of the ancient Hawaiians. As many of the plants growing in Hawaii grow likewise in other islands of the Pacific and as many of the ancient Hawaiian customs are like the customs of the present inhabitants of other Pacific Islands, this book is actually illustrative of plants and customs of the South Seas. Read about tree ferns and the pulu industry, hula and mat making, lele and hula dancing, idols, sugarcane and pineapple industries, coconuts and the giant crab, taro and edible past-like poi, ti leaves for dresses, banana and the taboo, shamshoo ginger and earth oven, beefwood tree, breadfruit and surfing, making of bark cloth, sandalwood and the disastrous New Hebrides expedition, mistletoe and other parasites, kua and its two kinds of leaves, outrigger canoe, grass house, candlestick-lighting, human sacrifices, passion flower, guava and coffee, the poisonous Star-of-Bethlehem, besides other plants and native customs.

233 pages profusely illustrated with 101 full-page plates and 29 figures. Paper cover, \$4.00

NATURALIST'S SOUTH PACIFIC EXPEDITION: FIJI. An account of human interest dealing with social conditions, cannibalism, fire-walking, religion, native treatment for leprosy, Fiji drums, tattooing, doodlebugs, starfish, flying foxes, burial alive of chiefs, strangling of widows, peonage, and Missionary failures and successes in Hawaii and elsewhere. 212 pages with 146 photos—\$5.00.



Pure Fillion Baby



Piper methastemum Forst. f.



Cress sativus L.

Reprinted from PHYTOLOGIA, Volume 19, No. 1

CYANEA CARLSONII ROCK AND THE UNNATURAL DISTRIBUTION OF
SPHAGNUM PALUSTRE L.

Otto & Isa Degener and Hans Hörmann

Invited by retired Forester L. W. Bryan (*) to see Cyanea carlsonii, described by J. F. Rock (**), the Degeners and National Park Ranger T. L. Picco and wife left the Volcano area for an overnight stay in the village of Captain Cook, District of Kona, Island of Hawaii. Early on May 30, 1969, Col. Bryan led them for miles along private jeep roads chiefly at elevations between 2,000 and 5,000 feet in the Honaunau Forest Reserve. Here three healthy Carlson (***) cyanea, two to three meters tall, could be studied in the open rainforest, one protected from cattle by being on the safe side of a fence. In the neighborhood was the remains of a specimen, apparently dead of old age, consisting of a single, almost erect stem ten meters tall. This species is palm-like in habit, bearing at the end of its single leaf- and inflorescence-scarred trunk a crowded tuft of short-petioled (hardly "sessile"), linear-oblongate leaves up to 70 cm. long and 10 cm. wide. When such plants are decapitated they either produce a few adventitious branches to continue an unnatural growth, or more likely die. One plant studied bore several branches which we relieved of three leaves, though we augmented our supply for museum specimens by retrieving several dead ones from the ground. The type plant, it was related, shown to a visiting California botanist who surreptitiously bagged its single stem for a museum specimen, unfortunately had died! The species evidently is on the verge of extinction.

Two species of sphagnum are known from the Hawaiian Islands. One is Sphagnum wheeleri C. Müll., an endemic limited to the Hawaiian Islands and known to Bartram (****) only from three collections coming from bogs at higher elevations of West Maui: two from Mt. Eke (C. N. Forbes; Degener & Wiebke, in 1927) and a third from the Honokohau drainage basin (C. N. Forbes).

The other sphagnum known from this archipelago is S. palustre L., a cosmopolitan moss with Europe as the type locality. This was known to Bartram only from the District of Kohala, Island of Hawaii. The occasional reports ascribing this sphagnum to other areas of the Hawaiian Islands, unless a voucher specimen exists, we hardly take seriously as one of the three native "white fork mosses" of the genus Leucobryum could easily be mistaken for a sphagnum by an amateur. In fact, as recently as September, 1968, National Park Ranger Ralph Harris asked about a sphagnum on the Island of Maui. As he wisely submitted a voucher specimen that proved to be, not a Leucobryum, but a Rhizogonium, we could scotch that rumor quickly.

The senior writer decades ago collected abundant material of

Sphagnum palustre along the plateau at the head of Waipio Valley, District of Kohala, of which exsiccatae have been widely distributed; and both Degener have admired the masses of sphagnum, conspicuously blanketing the plateau bog and the edge of the pali, or cliff, with pale yellow whenever flying over this same region.

On the return trip, after admiring the cyanes, the Degeners were elated to find a sphagnum along the rainforest road, growing in healthy tufts among bushes and sparse grass. Their elation at apparently discovering a new sphagnum or at least a new station for *S. palustre* forty-two miles distant as the crow flies from Waipio was premature. Col. Bryan explained that sphagnum was harvested as early as 1919 above Waipio as it was cheaper getting this native supply than importing sphagnum from the Mainland, with the additional benefit that local material would be free of troublesome exotic weed seeds. To harvest this heavy moss, it was merely passed through an old-fashioned clothes wringer to free it of water before hauling to the government nursery in Hilo for storing. This supply was used for enlivening earth-free seedlings of exotic timber trees before carrying them into the jungle for planting. The moss we found on May 30, 1969, evidently grew from material used in packing seedlings of various species of *Pinus*, *Loas*, of *Fraxinus uhdei*, etc., to this general area between 1962 and 1964. Whether the sphagnum became naturalized in this new station from spores or from desiccated, dormant gametophyte fragments, or both, we do not know.

To verify that the collection (Degener & Bryan 31, 954) was truly *S. palustre*, it was carefully studied by modern methods: The stem is up to 18 cm. long though often only 5-7 cm., stiff but fragile, in cross section having a reddish brown woody cylinder bearing three layers of fibrillose cortical cells of which the outer have 1 pore. Stem leaves broadly lingulate, very concave, 2.2 mm. long, 1.0 mm. wide; margins from apex to near rounded base eroded; hyaline cells fibrillose except at apex. Branch leaves broadly ovate, 2.7 mm. long, 1.5 mm. wide, very concave; margins inflexed; apex cucullate and rough by projecting cells; many big pores in corners of hyaline cells and all fibrillose; chlorophyll cells in cross section narrow-elliptic to -trapezoidal with the wider base exposed on inner surface of leaf. Even though the specimens were sterile, the above description coincides specifically with *S. palustre* L., as occurring in Europe.

We mention this find of our native, but not endemic, sphagnum lest botanical workers confuse the natural with the "unnatural" range of *S. palustre* on the Island of Hawaii. This species, incidentally, can readily be distinguished from *S. wheeleri* C. Mill. by the leaves rough at the back of the apex and the fibrillose cortical cells of stem and branches.

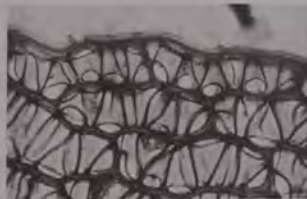
*Lester W. Bryan was born in Boston, Massachusetts, in 1895. After a year during World War I in Europe, he later engaged in

engineering in California. He arrived in Honolulu on May 1, 1921, and soon held the dual position of forester in charge of the extensive Hawaiian Sugar Planters Association Forest Reserves on the Island of Hawaii, and Forestry officer for the Territory of Hawaii. When the Association discontinued its forestry program in 1949, he continued at Territorial and later State Forester until his retirement in 1961. This was full time except for the interruption of World War II when Col. Bryan was assigned various duties in the Pacific, the last being that of Commanding Officer of Christmas Island. He is largely responsible for the introduction of exotic timber trees, as well as fruit trees and ornamentals, thus changing the aspect of the Hawaiian Islands in many areas. According to his "Twenty-five Years of Forestry Work on the Island of Hawaii" in *Haw. Planters' Record* 51 (1): 1-80. 1947, he and his colleagues had introduced over 1,200 taxa of exotic plants. This pamphlet describes, with pertinent remarks, at what elevations each surviving taxon was planted; and whether its vigor was excellent, good, fair, or poor. We emphasize the existence of this forestry work because of its importance regarding plant introductions, introductions not generally known to the botanist. Since that time he has introduced many additional exotics, such as *Metasequoia glyptostroboides*, for which he maintains up-to-date records for eventual publication.

**Rock, J. F., in B. P. Bishop Mus. Occas. Pap. 22 (5): 60-63, fig. 14. 1957.

***Norman K. Carlson in 1949-1953 was Range Conservationist with the Soil Conservation Service, and since 1953 has been head of the Division of Agriculture and Forestry of the Bernice Pauahi Bishop Estate. Dr. Rock described the new species from sterile material. Mr. Carlson cultivated one of the plants in his garden, at length getting the unknown flowers and fruit. Rock described these structures in the B. P. Bishop Mus. Occas. Pap. 23 (5): 70, fig. 3, August 17, 1962. Note that Dr. F. E. Wimmer died on May 2, 1961, predeceasing his friend Rock who died on December 5, 1962; yet Wimmer described the flowers and fruit posthumously, unless, of course, Dr. K. H. Rechinger did so for him when completing the manuscript for publication, in "Das Pflanzenreich" in 1968.

****Bartlett, E. B., *Manual of Hawaiian Mosses*, pp. 11, 12. 1933.



Part of branch leaf of *Sphagnum palustre* L., showing
hyaline, fibrillose cells with large pores,
x 400

[Nature Conservancy]
officer

A MERRY CHRISTMAS AND A HAPPY NEW YEAR 1970

Dear friends:

Even though we have little new to tell, we have decided to write again, because we have been so delinquent about writing during the year, and because we are eager to hear from you.

We spent the year in the same three places: Mexico, Evanston, Sayner. Nothing very exciting happened, except that we bought a new car hoping to drive to Mexico, but I failed my driver's license test and had a terrible time getting it renewed. What a tale!

We were in Mexico City for New Year's Eve. The display of colored lights was fantastic. Patterns in lights were strung across the streets, and pictures in lights, some animated, were on the walls of buildings. People in costumes filled the parks and streets. Vendors selling balloons and noise-making devices lined the walks and curbs. Photographers taking pictures of anyone who would pose with the costumed Three Wise Men or with Santa and his sled were everywhere. We had a snack in Sandborn's near the Prado Hotel and watched the New Year come in.

The winter at Oaxaca Courts was very pleasant, with lots of sunshine. We walked, watched birds, swam in the pool, and enjoyed many visitors from the States. A library, founded by the America colony, provides us with plenty of reading material.

We came home on March 1. I pitched in to raise the \$40,000 for the 160 acres of woods along the Vermilion River in La Salle County. I had 9,000 brochures - very nice ones with 5 pictures of the area in color - to mail out. I had taken my typewriter to Mexico and had spent hours and hours typing names and addresses on stickum labels for the envelopes. Kate spent hours and hours looking up zip codes for the addresses. By the time we left for Sayner, we had mailed about 6,000 pieces and had raised about \$24,000. At the cottage, I worked on more addressing and mailed another 3,000 in the fall. At present, we have about \$37,000 with just \$3,000 short of the goal. I often think of all the things we have given up for this project - social life, traveling, reading, etc. and I think I should give up saving wild land for posterity and have a little fun.

The weather in Wisconsin was not as cold as the past two summers. I swam almost every day. We picked wild red raspberries and made jelly. The best raspberry patch is on state land over near Kate's cottage, so she often picked with us. The same three friends have come to keep me company - one at a time - for the past several years. And Good Companions they are!

Since I wanted to attend the Annual Meeting of the National Nature Conservancy in Madison, we came home earlier than usual - August 25.

Both in the spring and in the fall, we had many trips, most of them in Illinois and most connected with my conservation activities. We visited most of the areas owned by the Nature Conservancy and found very little destruction or litter. The Conservancy owns 21 areas, 9 of which were gifts and 12 were purchased. Of the gifts, 4 were due mostly to my efforts, and of those purchased, I was responsible for raising the money for 4 others.

We attended four meetings of the Nature Preserves Commission in different parts of the state. My term on the Commission will expire soon; sad to say, because I have enjoyed it. I have been on for 8 years. Meetings are open to the public, so I can continue to attend if I wish, but unofficially. Illinois has put the other states to shame with the number of Nature Preserves it has acquired. The legislature finally woke up and appropriated 14½ million dollars for land acquisition, most for state parks, but 1½ million for Nature Preserves which will be protected in their natural condition.

We gave many talks to Garden Clubs, other groups, and even to Lions and Rotary Clubs, Kate operating the projector for slides.

I meet groups of school children and Scouts at the Nature Center in Lighthouse Park, and, with my handyman, Willie, I take care of the wild flower garden there. In spite of little care, our garden at home has been a mass of color with chrysanthemums in bloom until this present freeze.

In three weeks we will take off for Oaxaca again and the cycle will start over. Perhaps next year we will decide to do a little travelling and have more social life.

Trusting that you are, and will remain, in good health, we look forward to hearing from you.

Too bad that prices in Hawaii are prohibitive for a retired professor - so I have to go to Mexico for the winters. I'm sorry to admit that my interest in saving some natural land for the future had crowded out most of my botanical interests - hope to get back to it when I finish this present project. Best wishes, Maryann