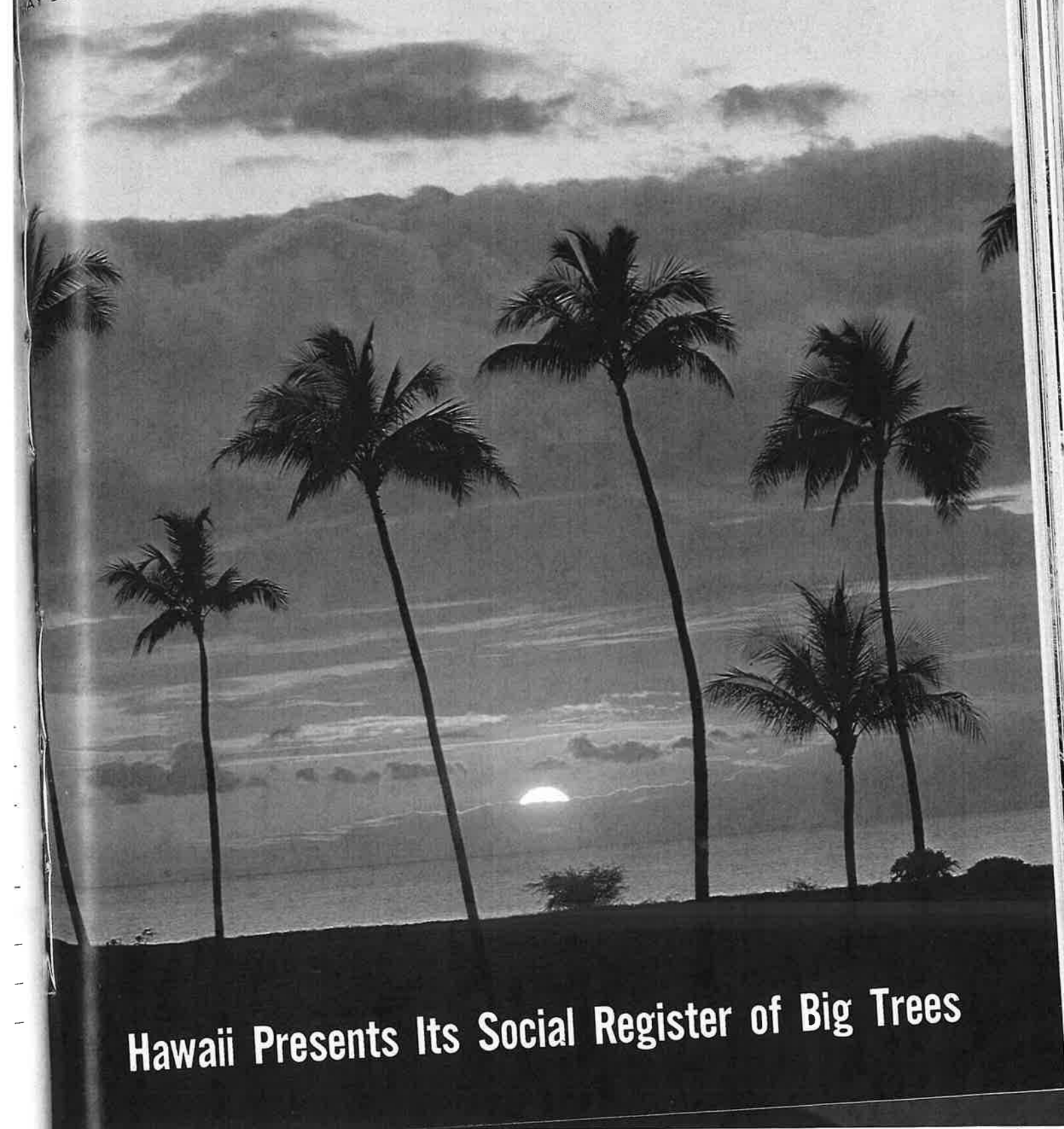


AMERICAN FORESTS

The Magazine of Forests, Soil, Water, Wildlife, and Outdoor Recreation
MAY 1974



Hawaii Presents Its Social Register of Big Trees

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Cover—Sunset and coco palms, Lahaina, Maui, Hawaii. Photo by David Muench

Notice to Readers

If your April and May issues of American Forests have been slow in reaching you please accept our apologies. The delay has been due to a strike at our Long Prairie, Minn. printing house. New arrangements have now been made and we should be back on schedule soon.

The American Forestry Association is a national conservation organization—independent and non-political—for the advancement of intelligent management and use of our forests, soil, water, wildlife, and all other natural resources necessary for an environment of high quality and the well-being of all citizens. Established in 1875, the Association seeks, by means of its magazine *American Forests* and in other ways, to promote an enlightened public appreciation of natural resources and the part they play in the social, recreational and economic life of the nation.

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Rainbow Falls and ginger blooms, Hilo



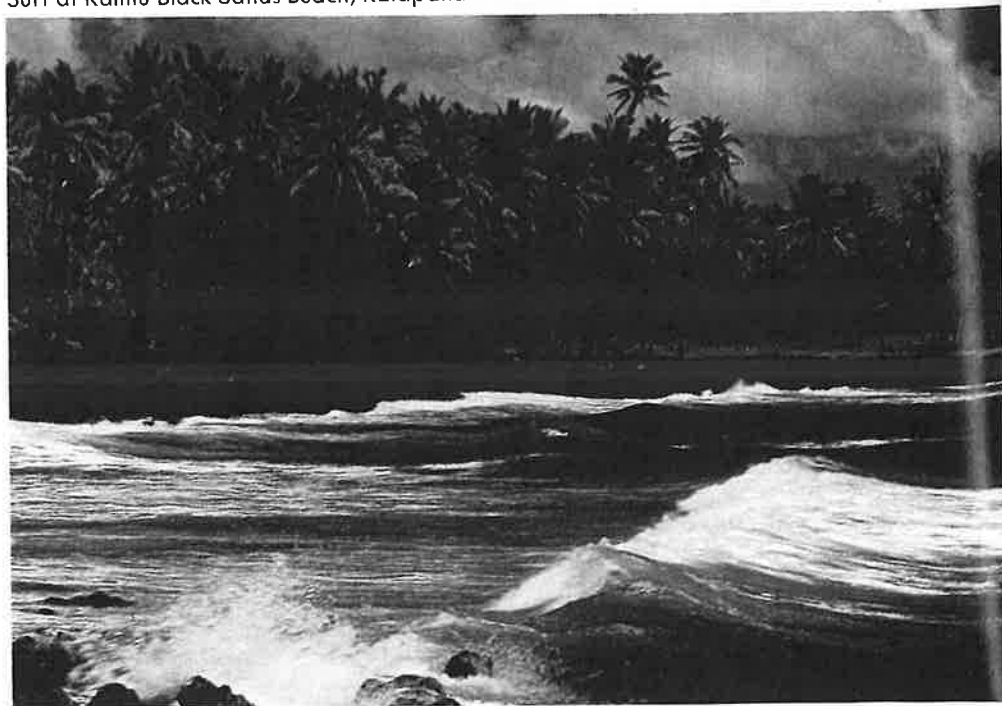
Amau mau fern and aa lava
in Hawaii Volcanoes N.P.

Kona coastline coco palms ▶

Beautiful hawaii

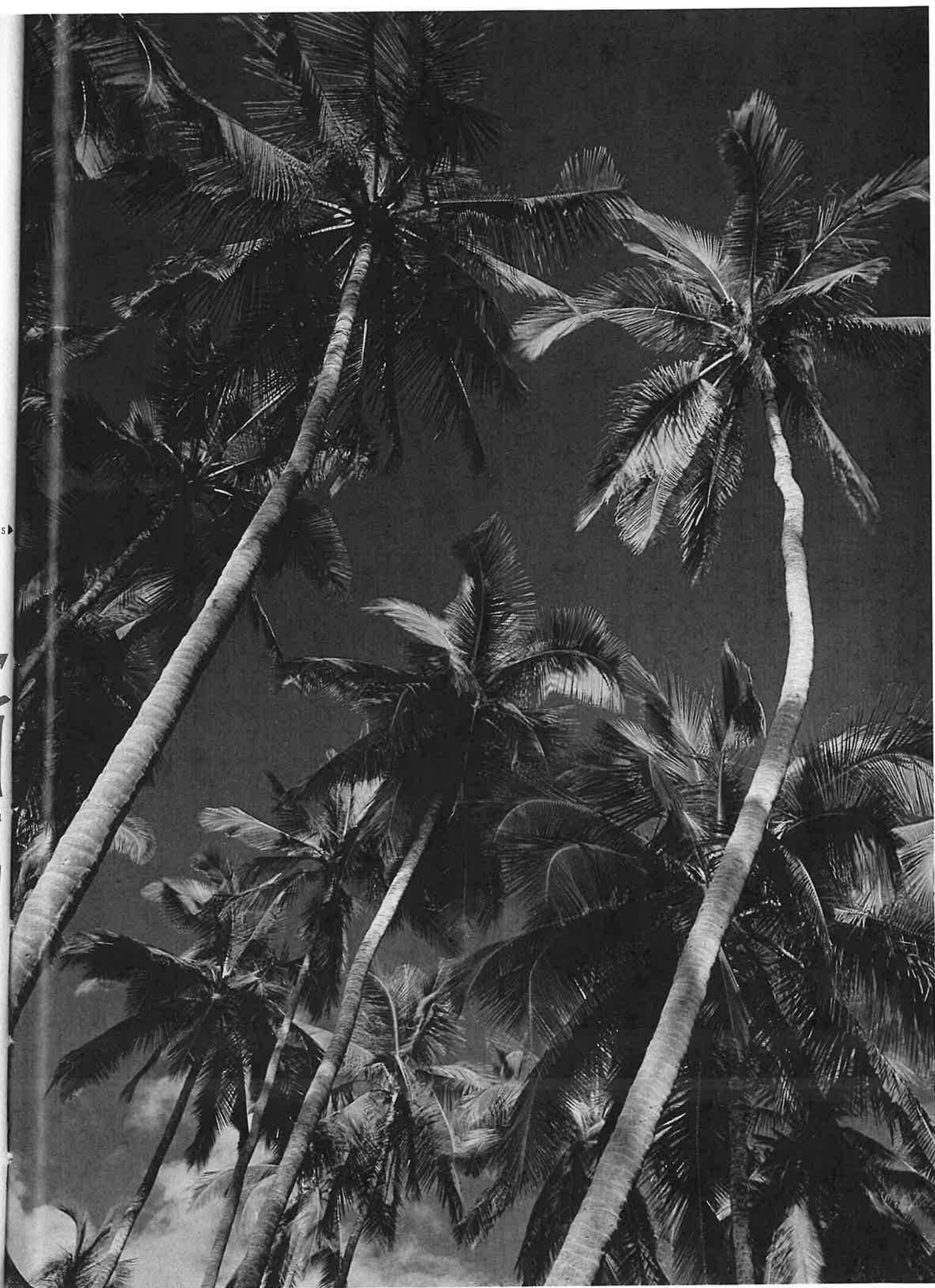
Photos by David Muench

Surf at Kaimu Black Sands Beach, Kalapana coastline



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Acacia koa logs ready for the mill in Hilo

Photos by N. K. Carlson

Champion Acacia koa, Keauhou, Kau



Photo by L. W. Bryan

Century old champion Indian banyan, *Ficus benghalensis*, Lahaina, Maui

CHAMPION TREES OF

hawaii

IT WAS just over five years ago, in February 1969, that we first published in *AMERICAN FORESTS* a listing of the Big Trees of Hawaii; a monumental compilation of some 201 native and exotic species put together through the efforts of retired Hawaiian State Forester, Colonel L.W. "Bill" Bryan. That event marked the entry of Hawaii and its trees into our "Social Register of Big Trees".

As in so many things, Hawaii is in a class by itself when it comes to Big Trees. Its native National Champions grow nowhere else in the country. Nor do most of its magnificent variety of exotic trees grow on the mainland. Because of this, Hawaii has no real competition from its sister states for most of its close to 200 champions. For this reason we have not tried to integrate the Hawaiian trees into our standard "Social Register of Big Trees", except for those species which both grow in Hawaii and are native or naturalized on the mainland (indicated by † in the following list).

What follows then is the newest list of the largest native and exotic trees of Hawaii. We're pleased to be able to once again pay our tribute to the unrivaled arboreal beauty and variety of our 50th State. Thanks again, Colonel "Bill" Bryan for your help.

To re-acquaint our readers with Colonel Bryan, here's some of what we told you about him back in 1969:

"Bryan's long and distinguished career began in 1921 when he arrived in Hawaii with \$90 in his pocket and a bed roll under his arm. He had received his education at Massachusetts College of Agriculture, spent over a year in France during World

War I, and then followed the old advice of Horace Greeley and went west. After a year in California he continued west to Hawaii—a seven-day voyage with a deck load of cattle.

"Soon he became associated with Dr. H. L. Lyon at the Hawaiian Sugar Planters Association Experiment Station learning names of various plants being propagated and assisting with routine work. After three weeks he successfully completed his trial period and was sent to take charge of the H.S.P.A. Hilo Forest Reserve. His work as Forest Supervisor soon was expanded to cover the entire Island of Hawaii and parts of Maui and Kahoolawe. In addition, he was employed in 1922 as Forestry Officer for the Territory of Hawaii and continued both jobs until the H.S.P.A. closed their forestry operations in 1949. But he continued as Territorial and State Forester until his retirement in 1961.

"The outbreak of World War II again brought Bryan to active duty for his country, and he served in various assignments in the Pacific Theater. At the end of the War he was Commanding Officer of Christmas Island and found it possible to visit many adjacent islands in order to observe forests and collect seed. After the War he was separated from the Army but helped reorganize the Hawaiian National Guard and later became Chief of Staff until 1953. He was retired for age as a Colonel in 1955. A new National Guard armory was named for him in 1965.

"He is author of numerous bulletins, magazine articles, and two books; chaired the Standing Committee on Forestry Resources of the Pacific; presented papers at

AMERICAN FORESTS



Australian toon, *Toona ciliata* var. *australis*, Honaunau Forest Reserve, Kona

Photos by N. K. Carlson



Metrosideros collina, ohia, in Keauhou, Kau, with its deep red to yellow flowers, is the principal hardwood of Hawaii

the 5th and 6th World Forestry Congresses and at the 10th and 11th Pacific Science Congresses."

Colonel Bryan hasn't been sitting still since we last heard from him either. In 1969 he made a trip around the world, including several months in Africa studying the forests. In 1971 he was a delegate to the 12th Pacific Science Congress in Canberra, Australia, taking in seven other countries before and after the meeting. In 1972 he was a delegate to the 7th World Forestry Congress in Argentina where he presented a paper, touring a total of nine countries along the way.

Apparently it has taken the energy crisis to slow Colonel Bryan down. He reports that remeasurements were not possible on all the following trees due solely to the lack of gasoline in Hawaii.

As before, Colonel Bryan wishes to acknowledge the assistance of the following people in this effort: Mrs. Irma C. Bryan, Kailua-Kona, Hawaii; Norman K. Carlson, Bishop Estate, Kealahou, Hawaii; Karl Korte, Division of Forestry, Kahului, Hawaii; Ernest Pung, Division of Forestry, Hilo, Hawaii; Herbert H. Kikukawa, Division of Forestry, Honolulu, Hawaii; Bunichi Usagawa, Division of Forestry, Hilo, Hawaii; Harry L. Denison, Honolulu, Hawaii; Erin and Patrick Bryan, Haiku Plantations, Kaneohe, Hawaii; George Schattauer, Honomolino Farms, Captain Cook, Hawaii; Philip Hooton, Kohala Sugar Company, Hawaii, Hawaii; Mrs. Nancy Fraser, Kukuiahele, Hawaii; John Ah San, Division of Forestry, Lapaheo, Hawaii; Hans Hansen, Kalaheo, Hawaii; and Myron Wold, Hilo, Hawaii.

NATIVE SPECIES

	Circum. at 4½ feet	Height	Spread	Location, City and Island
Acacia koa koa	37'4" (above bulge)	140'	128'	Keauhou Kau, Hawaii.
Aleurites moluccana kugui (candlenut)	10'7"	67'	59'	Kapapala, Pahala, Hawaii.
Alphitonia ponderosa kauila (o'a)	7'	62'	54'	Kokee State Park, Kauai.
Antidesma platyphyllum hame	6'8"	52'	23'	Kaupulehu, Kailua-Kona, Hawaii.
Calophyllum inophyllum kamani	18'6"	59'	81'	Malama-ki Forest Reserve, Puuwaawaa, Kailua-Kona, Hawaii.
Canthium odoratum alahe'e	3'8"	39'	18'	Kaupulehu Forest Reserve, Kailua, Hawaii.
Cassia gaudichardii uheuhe	10"	18'	12'	Hawaii Volcanoes National Park, Hawaii.
Cheirodendron gaudichaudii olapa	4'6"	37'	28'	Honaunau Forest Reserve, Kailua-Kona, Hawaii.
Cibotium menziesii hap'u-'i'i (Hawaiian treefern)	15'10"	35'	24'	Puuwaawaa, Kailua-Kona, Hawaii.
Colubrina oppositifolia kauila	8'6"	47'	44'	Mauna Kea Forest Reserve, Hoomau, Hawaii.
Coprosma montana mountain pilo	3'8"	35'	29'	Hawaii Volcanoes National Park, Hawaii.
Coprosma rhynchocarpa pilo	3'4"	25'	16'	Puuwaawaa Ranch, Kailua-Kona, Hawaii.
Diospyros ferrea lama	2'9"	35'	17'	Kaupulehu, Kailua-Kona, Hawaii.
Dracaena aurea hala-pepe	3'6"	20'	14'	Hoomau Ranch, Honomolino, Hawaii.
Drypetes phyllanthoides mehamehame	16'7"	67'	46'	Puuwaawaa Ranch, Kailua-Kona, Hawaii.
Erythrina sandwicensis wiliwili	12'6"	55'	57'	Kaelekehe, Kailua-Kona, Hawaii.
Eugenia malaccensis 'ohi' a-ai	4'9"	35'	20'	Panaewa Forest Reserve, Hilo, Hawaii.
Gardenia remyi nanu	3'6"	36'	25'	

Gouldia terminalis manono	3'	20'	12'	Hawaii Volcanoes National Park, Hawaii.
Hibiscadelphus giffardianus hau-kuahiwi	1'3"	39'	17'	Hawaii Volcanoes National Park, Hawaii.
Ilex anomala kawa'u	3'11"	45'	32'	Honaunau Forest Reserve, Kailua-Kona, Hawaii.
Kokia drynarioides kokio	5'4"	27'	23'	Puuwaawaa, Kailua-Kona, Hawaii.
Metrosideros collina 'ohi'a-lehua	17'10"	84'	78'	Waipunalei, Hilo, Hawaii.
Mezoneurum kauaiense uhiuhi	3'6"	26'	31'	Puuwaawaa, Kailua-Kona, Hawaii.
Myoporum sandwicense naio	17'2"	70'	56'	Keauhou, North Kona, Hawaii.
Myrsine lessertiana kolea	6'9"	67'	25'	Hawaii Volcanoes National Park, Hawaii.
Nothoecstrum breviflorum 'aiea	3'4"	31'	21'	Puuwaawaa, Kailua-Kona, Hawaii.
Osmanthus sandwicensis olopua	10'2"	54'	31'	Hoomau Ranch, Honomolono, Hawaii.
Pandanus tectorius hala	4'6"	35'	40'	Keau, Hilo, Hawaii.
Pelea volcanica alani	2'11"	40'	36'	Hawaii Volcanoes National Park, Hawaii.
Pipturus albidus mamaki	2'9"	28'	33'	Hawaii Volcanoes National Park, Hawaii.
Pisonia intermis papala-kepau	6'3"	50'	31'	Hoomau Ranch, Honomolono, Hawaii.
Pouteria sandwicensis 'ala'ala	5'3"	38'	29'	Puuwaawaa, Kailua-Kona, Hawaii.
Pritchardia affinis beach loulou	3'8"	42'	13'	Keau, Hilo, Hawaii.
Pritchardia beccariana loulou	4'6"	55'	19'	Waiakea Forest Reserve, Hilo, Hawaii.
Pseudomorus sandwicensis a'ia'i	4'	38'	20'	Kaupulehu, Kailua-Kona, Hawaii.
Reynoldsia sandwicensis ohe-makai	6'8"	48'	23'	Puuwaawaa, Kailua-Kona, Hawaii.
Santalum pilgeri 'ili'ahi (sandalwood)	7'8"	65'	48'	Honomolono, S. Kona, Hawaii.
Sapindus saponaria wingleaf soapberry	10'1"	106'	84'	Hawaii Volcanoes National Park, Hawaii.
Sophora chrysophylla mamani	12'2"	39'	42'	Mauna Kea Forest Reserve, Honomolono, Hawaii.
Straussia hawaiiensis kopiko	4'9"	45'	30'	Hoomau Ranch, Honomolono, Hawaii.
Tetraplasandra hawaiiensis 'ohe'ohe	14'2"	67'	69'	Hoomau Ranch, Honomolono, Hawaii.
Tetraplasandra kauaiensis var. diyprena ohe'ohe	7'5"	40'	26'	Kawaihae, Waimea, Hawaii.
Thespesia populnea Milo	9'	42'	69'	Kekaha, Kauai.
Xanthoxylum dipetalum var. gemicarpum a'e	5'6"	71'	35'	Hawaii Volcanoes National Park, Hawaii.
Xylosma hillebrandii maua	5'1"	58'	43'	Hoomau Ranch, Honomolono, Hawaii.

EXOTIC SPECIES

	Circum.	Height	Spread	Location, City and Island
Acacia confusa Formosa koa	5'11"	65'	88'	Kohala Forest Reserve, Muliwai, Hawaii.
* Acacia melanoxylon blackwood acacia	8'2"	78'	57'	Kohee State Park, Kauai.



Douglas-fir, named for David Douglas, planted in 1934 as marker was dedicated in commemoration of his death on this spot one hundred years earlier

Thirty-year-old *Eucalyptus robusta* Kau. Samples taken for testing at U.S.F.S. Wood Products Laboratory

Photos by N. K. Carlson

L. W. Bryan with tropical ash, *Fraxinus uhdei*, which produces a fine blond hardwood almost the equal of American ash



EXOTIC SPECIES

	Circum.	Height	Spread	Location, City and Island
Adansonia digitata baobab	17'6"	48'	72'	Queen Emma Hospital, Honolulu, Oahu.
* Adenanthera pavonina red sandalwood	5'11"	60'	38'	Hilo, Hawaii.
Agathis robusta Australian kauri	13'8"	105'	88'	Foster Gardens, Honolulu, Oahu.
* Albizia falcata Molucca albizzia	29'9"	110'	167'	Hilo, Hawaii.
* Albizia lebbek lebbek	21'5"	65'	95'	Lahaina, Maui.
* Albizia lebbekoides Indonesian albizzia	13'6"	91'	88'	Kealahou, S. Kona, Hawaii.
* Albizia montana mountain albizzia	17'	65'	108'	Akaka Falls State Park, Hilo, Hawaii.
* Alnus nepalensis Nepal alder	11'4"	75'	38'	Pepeekeo Arboretum, Hilo, Hawaii.
* Angophora lanceolata lanceleaf gum-myrtle	9'7"	132'	54'	Honolulu Forest Reserve, Kailua-Kona, Hawaii.
* Araucaria bidwillii bunya-bunya	16'1"	101'	42'	Kukuihaele, Hamakua, Hawaii.
* Araucaria columnaris columnar araucaria	10'2"	109'	40'	Kukuihaele, Hamakua, Hawaii.
* Araucaria cunninghamii hoop-pine	7'7"	101'	28'	Foster Gardens, Honolulu, Oahu.
* Araucaria heterophylla Norfolk-Island pine	16'6"	140'	75'	Lanai City, Lanai.
* Archontophoenix alexandrae Alexander kingpalm	4'2"	102'	17'	Reed's Island, Hilo, Hawaii.
Arecastrum romanzoffianum Queenpalm	3'10"	52'	32'	Reed's Island, Hilo, Hawaii.
Arenga pinnata (saccharifera) sugarpalm	5'2"	43'	21'	State Forestry Arboretum, Hilo, Hawaii.
Artocarpus altilis 'ulu (breadfruit)	10'4"	54'	59'	Hilo Hotel, Hilo, Hawaii.
* Artocarpus heterophyllus jakfruit	12'2"	53'	72'	Kukuihaele, Hamakua, Hawaii.
Barringtonia asiatica barringtonia	17'6"	70'	80'	Naniloa Hotel, Hilo, Hawaii.
* Bombax malabaricum simal	17'6"	75'	112'	Queen Emma Hospital, Honolulu, Oahu.
* Brassaia acitnophylla octopus-tree	17'4"	50'	58'	State Forestry Arboretum, Hilo, Hawaii.
Bumelia buxifolia ironwood	10'9"	51'	62'	Foster Gardens, Honolulu, Oahu.
* Callitris rhomboidea drooping cypress-pine	3'1"	58'	25'	Honolulu Forest Reserve, Kailua-Kona, Hawaii.
Canarium commune pili-nut (Java-almond)	7'7"	83'	61'	Foster Gardens, Honolulu, Oahu.
Canarium ovatum pili-nut	14'1"	83'	61'	Kalakaua Park, Hilo, Hawaii.
* Carica papaya papaya	4'10"	60'	12'	Alii Drive, Kailua-Kona, Hawaii.
Caryota urens wine-palm	4'4"	60'	36'	Oahu Island Botanical Garden, Wahiawa, Oahu.
Cassia grandis pinkshower	10'11"	56'	40'	Reed's Island, Hilo, Hawaii.
* Castanospermum australe Moreton-bay-chestnut	12'7"	86'	66'	Kakaihaele, Hamakua, Hawaii.
* Casuarina cunninghamiana river-oak ironwood	6'9"	80'	42'	Kohala Forest Reserve, Aamoa, Hawaii.
* Casuarina equisetifolia horsetail casuarina	17'3"	89'	56'	Olowalo, Maui.

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Eucalyptus pilularis, blackbutt
eucalyptus, Hilo Forest Reserve

EXOTIC SPECIES	Circum.	Height	Spread	Location, City and Island
* <i>Casuarina glauca</i> longleaf ironwood	10'5"	65'	37'	Waikoeke, Waimea Village, Hawaii.
* <i>Casuarina montana</i> mountain ironwood	6'3"	70'	38'	Kohala Forest Reserve, Aamaka, Hawaii.
* <i>Casuarina torulosa</i> corkbark ironwood	17'11"	55'	57'	Kahua, Hawi, Hawaii.
<i>Catalpa longissima</i> Haiti catalpa	8'3"	75'	43'	Foster Gardens, Honolulu, Oahu.
<i>Cavanillesia platanifolia</i> quipo	14'5"	60'	48'	Foster Gardens, Honolulu, Oahu.
* <i>Cecropia obtusifolia</i> trumpet-tree	9'	70'	72'	Paradise Park, Honolulu, Oahu.
* <i>Cedrela odorata</i> Spanish-cedar	13'4"	124'	67'	Kohala Forest Reserve, Muliwai, Hawaii.
* <i>Ceiba pentandra</i> kapok	24'5"	122'	160'	Halawa, N. Kohala, Hawaii.
<i>Chrysophyllum cainito</i> star-apple	5'9"	48'	39'	State Forestry Arboretum, Hilo, Hawaii.
* <i>Cinnamomum camphora</i> camphor-tree	22'8"	83'	100'	Ulupalakua, Maui.
* <i>Cinnamomum zeylanicum</i> cinnamon	7'5"	79'	65'	Iole, Hawi, Hawaii.
<i>Citrus sinensis</i> sweet orange	6'2"	41'	38'	Kainaliu, Kailua-Kona, Hawaii.
* <i>Clusia rosea</i> Scotch attorney	3'8"	52'	48'	Kailua, N. Kona, Hawaii.
* <i>Cochlospermum vitifolium</i> buttercup-tree	10'6"	48'	64'	Kainaliu, N. Kona, Hawaii.
* <i>Cocos nucifera</i> coconut	4'8"	94'	28'	State Forestry Arboretum, Hilo, Hawaii.
<i>Coelococcus carolinensis</i> ivorynut-palm	5'5"	71'	22'	State Forestry Arboretum, Hilo, Hawaii.
<i>Cordyline australis</i> cabbage-tree	5'2"	25'	15'	Kukaiau Ranch, Honokaa, Hawaii.
<i>Couroupita guianensis</i> cannonball-tree	9'6"	67'	61'	Foster Gardens, Honolulu, Oahu.
* <i>Cryptomeria japonica</i> sugi (cryptomeria)	8'9"	105'	18'	Hoomau Ranch, Honomolino, Hawaii.
<i>Cunninghamia lanceolata</i> China-fir	6'5"	102'	39'	Akaka Falls State Park, Hilo, Hawaii.
* <i>Cupressus lusitanica</i> Mexican cypress	3'4"	45'	32'	Honaunau Forest Reserve, Kailua-Kona, Hawaii.
* <i>Cupressus macrocarpa</i> † Monterey cypress	27'7"	85'	81'	Waikoeke, Waimea Village, Hawaii.
<i>Cupressus sempervirens</i> Italian cypress	8'5"	82'	20'	Ulupalakua Ranch, Ulupalakua, Maui.
<i>Cybistax donnell-smithii</i> primavera (Tabebuia)	10'11"	87'	79'	State Forestry Arboretum, Hilo, Hawaii.
<i>Cycas circinalis</i> cycad	9'2"	37'	31'	Maunaolu School, Paia, Maui.
<i>Delonix regia</i> royal poinciana	13'6"	48'	62'	Maunawili Ranch, Kailua, Oahu.
<i>Dracaena draco</i> dragon-tree	3'9"	20'	8'	Forbes Estate, Waimea, Hawaii.
<i>Dracaena marginata</i> Madagascar dracaena	4'9"	20'	36'	Kainaliu, N. Kona, Hawaii.
<i>Elaeis guineensis</i> African oilpalm	4'8"	62'	29'	Reed's Island, Hilo, Hawaii.
<i>Elaeocarpus serratus</i> Ceylon-olive	8'7"	61'	49'	Wainenu Ave., Roman Catholic Church, Hilo, Hawaii.
* <i>Enterolobium cyclocarpum</i> earpod-tree	26'6"	110'	115'	Foster Gardens, Honolulu, Oahu.
* <i>Eucalyptus baxteria</i> brown stringybark	8'1"	118'	46'	Hilo Forest Reserve, Humuula, Hawaii.



Photo by N. K. Carlson

A 21-year-old stand of *Toona ciliata* var. *australis*, called Australian redcedar, in Honaunau Forest Reserve, Kona, Hawaii

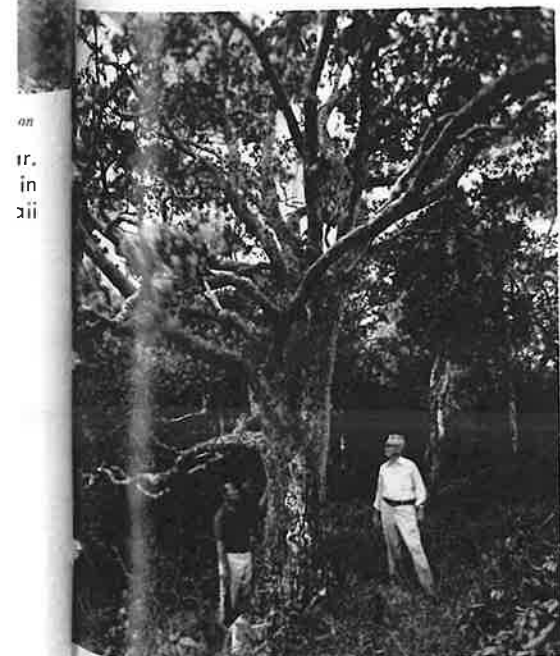


Photo by L. W. Bryan

Red jade vine introduced from New Guinea by L. W. Bryan years ago is shown growing on a monkeypod tree

Sandalwood, *Santalum pilgeri*, Pupukea Forest Reserve, Oahu, produces the wood once an important export item to China

Photo by N. K. Carlson



EXOTIC SPECIES	Circum.	Height	Spread	Location, City and Island
* <i>Eucalyptus bosistoana</i> coast graybox eucalyptus	15'4"	130'	89'	Kukuihaele, Hamakua, Hawaii.
* <i>Eucalyptus calophylla</i> Fort Gregory eucalyptus	11'1"	114'	59'	Kukuihaele, Hamakua, Hawaii.
* <i>Eucalyptus citriodora</i> lemon-gum eucalyptus	16'	98'	90'	Kaumana Drive, Hilo, Hawaii.
* <i>Eucalyptus deanei</i> Deane eucalyptus	11'	157'	60'	Honaunau Forest Reserve, Kailua-Kona, Hawaii.
* <i>Eucalyptus deglupta</i> bagras eucalyptus	6'6"	86'	42'	Oahu Island Botanical Garden, Wahiawa, Oahu.
* <i>Eucalyptus fraxinoides</i> white-ash eucalyptus	13'7"	114'	38'	Hilo Forest Reserve, Humuula, Hawaii.
* <i>Eucalyptus globulus</i> blue-gum eucalyptus	26'8"	90'	96'	Kukaiau Ranch, Honokaa, Hawaii.
* <i>Eucalyptus gonicalyx</i> mountain graygum eucalyptus	12'	126'	76'	Haleakala Ranch, Makawao, Maui.
* <i>Eucalyptus gummifera</i> bloodwood eucalyptus	13'4"	110'	50'	Hilo Forest Reserve, Humuula, Hawaii.
* <i>Eucalyptus grandis</i> rosegum eucalyptus	4'3"	110'	35'	Honaunau Forest Reserve, Kailua-Kona, Hawaii.
* <i>Eucalyptus maidenii</i> Maiden-gum eucalyptus	8'7"	116'	39'	Hilo Forest Reserve, Humuula, Hawaii.
* <i>Eucalyptus microcorys</i> tallowwood eucalyptus	9'6"	145'	65'	Honaunau Forest Reserve, Kailua-Kona, Hawaii.
* <i>Eucalyptus paniculata</i> gray ironbark eucalyptus	13'2"	107'	111'	Ulupalakua Ranch, Ulupalakua, Maui.
* <i>Eucalyptus pilularis</i> blackbutt eucalyptus	9'10"	113'	45'	Hilo Forest Reserve, Hilo, Hawaii.
* <i>Eucalyptus resinifera</i> kinogum eucalyptus	8'	117'	49'	Honaunau Forest Reserve, Kailua-Kona, Hawaii.
* <i>Eucalyptus robusta</i> robusta eucalyptus	16'7"	97'	72'	Kaupakuea, Hilo, Hawaii.
* <i>Eucalyptus saligna</i> saligna eucalyptus	12'11"	203'	70'	Greenwell Estate, Kailua-Kona, Hawaii.
* <i>Eucalyptus sideroxylon</i> red-ironbark eucalyptus	7'11"	83'	51'	Haleakala Ranch, Mokawao, Maui.
* <i>Eucalyptus tereticornis</i> forest redgum eucalyptus	6'8"	104'	49'	Honaunau Forest Reserve, Kailua-Kona, Hawaii.
* <i>Eucalyptus viminalis</i> mana eucalyptus	8'7"	107'	48'	Honaunau Forest Reserve, Kailua-Kona, Hawaii.
* <i>Eugenia cumini</i> Java-plum	9'11"	91'	54'	Ruddy Tong, Kapaa, Kauai.
* <i>Eugenia curranii</i> Curran-plum	3'6"	70'	30'	Kohala Forest Reserve, Muliwai, Hawaii.
* <i>Eugenia similis</i> arang	9'9"	79'	64'	State Forestry Arboretum, Hilo, Hawaii.
* <i>Euphorbia antiquorum</i> Malayan spurge-tree	2'6"	13'	25'	Alii Drive, Kailua-Kona, Hawaii.
<i>Euphorbia tirucalli</i> pencil-tree	5'5"	37'	30'	Maunalou School, Paia, Maui.
<i>Euphorbia logan</i> logan	5'11"	45'	61'	Kainaliu, Kailua-Kona, Hawaii.
<i>Ficus benghalensis</i> (A) Indian banyan	44'2"	80'	231'	Court House, Lahaina, Maui.
<i>Ficus elastica</i> (A) India-rubber fig	17'6"	117'	162'	Hilo Hotel, Ltd., Hilo, Hawaii.
<i>Ficus macrophylla</i> Moreton bay fig	34'3"	61'	128'	Holualoa Beach Alii Dr., Kailua, Hawaii.
<i>Ficus religiosa</i> (A) botree	39'11"	74'	145'	Moanalua Park, Honolulu, Oahu.
* <i>Ficus retusa</i> Chinese banyan	90'1"	104'	195'	Keaau Village, Puna, Hawaii.
* <i>Ficus rubiginosa</i> Port Jackson fig	23'4"	65'	82'	Akaka Falls State Park, Hilo, Hawaii.

*Reproducing naturally

(A) Does not produce fertile seeds in Hawaii

EXOTIC SPECIES	Circum.	Height	Spread	Location, City and Island
* <i>Fraxinus uhdei</i> tropical ash	11'8"	92'	95'	Kohala Forest Reserve, Muliwai, Hawaii.
<i>Garcinia mangostana</i> mangosteen	2'8"	30'	17'	State Forestry Arboretum, Hilo, Hawaii.
* <i>Grevillea robusta</i> silk-oak	10'7"	90'	47'	State Forestry Arboretum, Hilo, Hawaii.
<i>Guazuma tomentosa</i> guacima	8'2"	55'	64'	South King St., Honolulu, Oahu.
<i>Hibiscus elatus</i> Cuban bast	8'5"	82'	61'	Lihue Sugar Co., Lihue, Kauai.
<i>Hura crepitans</i> sandbox	12'2"	62'	64'	Moanalua Park, Honolulu, Oahu.
<i>Hyphaene thebaica</i> doupalm	4'8"	58'	41'	Foster Gardens, Honolulu, Oahu.
<i>Inga edulis</i> inga	12'10"	90'	80'	Kainaliu, North Kona, Hawaii.
* <i>Jacaranda mimosifolia</i> jacaranda	15'7"	76'	93'	Kealahakua, S. Kona, Hawaii.
<i>Juniperus bermudiana</i> Bermuda juniper	6'11"	72'	56'	Kainaliu, North Kona, Hawaii.
* <i>Khaya nyasica</i> Kyassa khaya	12'6"	111'	78'	Keaau, Hilo, Hawaii.
* <i>Lagerstroemia speciosa</i> queen-flower	8'4"	62'	54'	Foster Gardens, Honolulu, Oahu.
<i>Lecythis zabucajo</i> sapucaia-nut tree	7'11"	70'	81'	State Forestry Arboretum, Hilo, Hawaii.
<i>Litchia chinensis</i> litchee	10'8"	61'	53'	Kapiolani St., Hilo, Hawaii.
* <i>Livistona chinensis</i> Chinese fanpalm	3'8"	42'	26'	Reed's Island, Hilo, Hawaii.
* <i>Livistona rotundifolia</i> sadang	3'9"	92'	18'	Waiuanue Ave., Hilo, Hawaii.
<i>Lonchocarpus domingensis</i> guama	10'8"	88'	75'	Foster Gardens, Honolulu, Oahu.
* <i>Macadamia tetraphylla</i> macadamia-nut	2'9"	50'	36'	Kainaliu, Kailua-Kona, Hawaii.
* <i>Macaranga grandifolia</i> macaranga	4'4"	80'	40'	Kohala Forest Reserve, Muliwai, Hawaii.
<i>Mammea americana</i> mammee-apple	7'10"	59'	54'	South King St., Honolulu, Oahu.
* <i>Mangifera indica</i> mango	24'8"	71'	70'	Rainbow Falls State Park, Hilo, Hawaii.
* <i>Manihot glaziovii</i> Ceara rubber-tree	5'8"	25'	36'	Kealahake, Kailua-Kona, Hawaii.
<i>Manilkara zapota</i> chicle	8'4"	61'	42'	Foster Gardens, Honolulu, Oahu.
* <i>Melaleuca leucadendron</i> †cajeput-tree	10'2"	75'	66'	State Forestry Arboretum, Hilo, Hawaii.
* <i>Melia azedarach</i> †chinaberry	18'6"	75'	96'	Kaohe, South Kona, Hawaii.
* <i>Messerschmidia argentea</i> tree heliotrope	9'7"	32'	46'	Puako Kawaihae, Hawaii.
* <i>Michelia champaca</i> mulang	4'11"	48'	40'	Reed's Island, Hilo, Hawaii.
<i>Mimusops elengi</i> pogada	6'3"	58'	45'	Foster Gardens, Honolulu, Oahu.
<i>Orbignya cohune</i> cohune palm	5'9"	65'	31'	Keaau, Hilo, Hawaii.
<i>Parkia biglandulosa</i> nitta-tree	10'2"	85'	64'	Keaau, Hilo, Hawaii.
<i>Parkia javanica</i> amarang	9'11"	90'	56'	Keaau, Hilo, Hawaii.
* <i>Peltophorum inerme</i> yellow-poinciana	11'5"	63'	74'	Queen Emma Hospital, Honolulu, Oahu.



Rosegum eucalyptus, *Eucalyptus grandis*, and *Cryptomeria japonica*, sugi, in Honaunau Forest Reserve, Kona, Hawaii

Photos by N. K. Carlson





ndis, in Hawaii
L. W. Bryan measuring 20-year-old *Eucalyptus saligna*, Honaunau F.R., Kona
Port Orford cedar, *Chamaecyparis lawsoniana*, Hilo Forest Reserve



EXOTIC SPECIES	Circum.	Height	Spread	Location, City and Island
* <i>Persea americana</i> avocado	13'9"	65'	40'	Hawaiian Agricultural Co., Pahala, Hawaii.
* <i>Pinus patula</i> jelecote pine	6'5"	108'	27'	Kula Forest Reserve, Maui.
* <i>Pinus pinaster</i> maritime pine	9'11"	90'	54'	Waihou Springs Forest Reserve, Olinda, Maui.
* <i>Pithecellobium dulce</i> opiuma	24'11"	66'	107'	Napoopoo, Hawaii.
* <i>Pithecellobium saman</i> monkeypod	30'9"	104'	140'	Kohala Forest Reserve, Muliwai, Hawaii.
* <i>Plumeria rubra</i> frangipani	4'10"	35'	38'	State Forestry Arboretum, Hilo, Hawaii.
* <i>Podocarpus imbricatus</i> Java podocarpus	10'4"	77'	49'	State Forestry Arboretum, Hilo, Hawaii.
* <i>Prosopis pallida</i> kiawe	13'5"	91'	81'	Puako, Kawaihe, Hawaii.
<i>Pterocarpus indicus</i> narra	8'6"	69'	42'	Keaau, Hilo, Hawaii.
<i>Quercus suber</i> cork oak	7'10"	56'	31'	Kukaiau, Hamakua, Hawaii
* <i>Rhizophora mangle</i> red mangrove	3'8"	61'	23'	Kohana-iki, Kailua-Kona, Hawaii.
<i>Roystonea oleracea</i> cabbage-palm	6'9"	105'	30'	Foster Gadens, Honolulu, Oahu.
<i>Roystonea regia</i> royal palm	7'	70'	30'	William Rickard Estate, Hono-kea, Hawaii.
* <i>Sandoricum koetjape</i> santol	3'8"	35'	37'	Kohala Forest Reserve, Muliwai, Hawaii.
* <i>Schinus molle</i> peppertree	12'5"	48'	74'	Puuwaawaa, Kailua-Kona, Hawaii.
* <i>Schinus terebinthifolius</i> Christmas-berry	12'6"	39'	46'	Waimea Village, S. Kohala, Hawaii.
* <i>Schizolobium parahybum</i> guapuruvu	5'2"	98'	42'	Akaka Falls State Park, Hilo Hawaii.
* <i>Spathodea campanulata</i> African tuliptree	15'6"	83'	56'	Kainaliu, North Kona, Hawaii.
<i>Spondas dulcis</i> wi-tree	15'3"	75'	62'	Ululani Street, Hilo, Hawaii.
<i>Spondias mombin</i> hogplum	9'7"	82'	73'	Foster Gardens, Honolulu, Oahu.
<i>Sterculia urens</i> nawa	15'4"	96'	114'	Queen Emma Hospital, Honolulu, Oahu.
* <i>Syncarpia glomulifera</i> turpentine-tree	14'6"	75'	38'	Iole, Hawi, Hawaii.
<i>Tamarindus indicus</i> tamarind	21'8"	62'	47'	Pioneer Mill Co., Lahaina, Maui.
<i>Tamarix aphylla</i> tamarisk	7'9"	48'	45'	Village of Honuapo, Hawaii.
<i>Taxodium mucronatum</i> †Montezuma baldcypress	17'1"	75'	59'	Wainaku, Hilo, Hawaii.
<i>Tectona grandis</i> teak	4'11"	56'	36'	Hongwanji Buddhist Church, Lahaina, Maui.
* <i>Terminalia catappa</i> tropical-almond	21'3"	45'	76'	Haile Church, Hilo, Hawaii.
<i>Terminalia edulis</i> dalison	8'5"	76'	93'	Manuka State Park, Kau, Hawaii.
* <i>Terminalia myriocarpa</i> Jhalna	19'10"	125'	110'	Kohala Forest Reserve. Muliwai, Hawaii
* <i>Toona ciliata</i> var. <i>australis</i> Australian toon	11'4"	117'	72'	Kohala Forest Reserve, Muliwai, Hawaii.
* <i>Trema orientalis</i> gunpowder-tree	20'6"	72'	108'	Pepeekeo, Hawaii.
* <i>Tristania conferta</i> brushbox	12'11"	60'	47'	Ulupalakua Ranch Co., Ulupalakua, Maui.

*Reproducing naturally