



Copyright © 1979 by the American Begonia Society

THE BEGONIAN is published monthly by the American Begonia Society. Views expressed are not necessarily those of the society, its officers, or the editors. Third-class postage paid at Redwood City, Calif.

Deadline for notices, advertising copy and manuscripts is six weeks before the first of the month of issue.

EDITORS—Karen Bartholomew and Chuck Anderson, 826 Santa Rita Ave., Los Altos, CA 94022. 415 948-5345 (evenings).

ADVERTISING MANAGER-Pat Maley, 1471 E.

AMERICAN BEGONIA SOCIETY

Founded January 1932 by Herbert P. Dyckman

Aims and purposes

- T0 stimulate and promote interest in begonias and other shade-loving plants.
- T0 encourage the introduction and development of new types of these plants.
- TO standardize the nomenclature of begonias.
- TO gather and publish information in regard to kinds, propagation and culture of begonias and companion plants.
- TO issue a bulletin which will be mailed to all members of the society.
- TO bring into friendly contact all who love and grow begonias.

Elected officers

- PresidentNathan Randall 10079 West Lilac Road, Escondido, CA 92026 Phone (714) 749-9096
- Past President.....Charles A. Richardson 696 Barsby St., Vista, CA 92083
- President-Elect.....Gilbert A. Estrada 7914 Springer St., Downey, CA 90242
- First Vice President......Ralph Corwin 1119 Loma Vista Way, Vista, CA 92083
- Second Vice President.....Douglas Frost 10622 Teal Dr., Garden Grove, CA 92640
- Treasurer Eleanor Calkins 910 Fern St., Escondido, CA 92027
- Secretary.....Virginia Barnett 1213 S. Mullender Ave., West Covina, CA 91790

Appointed officers

- Back Issue Sales.....Katharine Alberti 3322 Troy Drive, Hollywood, CA 90068
- Bookstore Librarian......Gil Estrada 7914 Springer St., Downey, CA 90242
- Branch Relations Director.....Evelyn Cronin 84 Abbey Lane, Cotuit, MA 02635

Publication of the American Begonia Society

Madison, El Cajon, CA 92021. 714 442-1922.

Advertising rates: \$10 per column-inch; \$25 quarter-page; \$40, half-page; \$80, full-page. Discount of 5% for four or more consecutive insertions.

Subscription: \$6 per year. Foreign (includes Mexico and Canada) \$6.50. First-class mail (includes Mexico and Canada) \$9. Overseas air mail \$18. Remit in U.S. Currency. Back issues 75ϕ each.

Subscription, dues, circulation inquiries, address changes: Kathy Brown, ABS membership secretary, 10692 Bolsa St., No. 14, Garden Grove, CA 92643. 714 531-8084.

- Business Manager.....Bill Walton P.O. Box 4048, Torrance, CA 90510
- Chairman, Awards Committee......Thelma O'Reilly 10942 Sunray Place, La Mesa, CA 92041
- Chairman, Ballot Counting Committee......Wanda Elin 1907 Aspin Circle, Fullerton, CA 92631
- Chairman, School for Judges.....Margaret Lee 1825 31st Street, San Diego, CA 92102
- Clayton M. Kelly Seed Fund Director.....Linda Miller 4613 Cochran St., Simi Valley, CA 93063
- Corresponding Secretary.....Lorraine Frinchaboy 3981 Garfield, Carlsbad, CA 92008
- HistorianFrances Estrada 7914 Springer St., Downey, CA 90242
- Lending Library.....Dolores Fernandez 4369 Tujunga Ave., No. Hollywood, CA 91604
- Nomenclature Committee Co-ChairmanCarrie Karegeannes 3916 Lake Blvd., Annandale, VA 22033 Co-ChairmanThelma O'Reilly 10942 Sunray Place, La Mesa, CA 92041
- Parliamentarian.....Norma Taylor 2040 E. Lambert Rd., La Habra, CA 90631
- Public Relations DirectorDiane Fries 3531 Creeklewood St., Torrance, CA 90505
- Research DirectorMildred Thompson 310 A Hill St., Southampton, NY 11968
- Round Robin Director.....Mabel Corwin 1119 Loma Vista Way, Vista, CA 92083
- Show and Convention AdviserJoan Coulat 4111 DePaul Ct., Sacramento, CA 95821
- Show and Convention Chairman 1979....Jack Golding 47 Clinton Ave., Kearney, NJ 07032
- Show and Convention Co-Chmn 1979.....Ed Grasheim 132 E. 35th St., New York, NY 10016
- Show Classification and Entry Chmn....Cecelia Grivich 2818 S. Baldwin Ave., Arcadia, CA 91006
- Slide Librarian......Flavio Gil 9653 Burma Rd., Pico Rivera, CA 90660

INSIDE/July 1979

THE COVER: B. 'Houghtonii' photographed b	
page 171: story on B. 'Dwarf H	loughtonii', page 170; profile of Dr. Arthur
Houghton, page 172.	
TECHNICAL ARTICLE	
B. roxburghii For the first time, an u	up-close look at its flowers 164
BEGONIA GROWING	
Easy to grow B. 'Dwarf Houghtonii':	
Christmas in July Kit Jeans explain	is the knack of mailing cuttings 168
DEPARTMENTS	
Question box174	Mini-ads
Round robins175	
ABS news176	The minutes179

NOTES/From the editors

Your new editors have inherited a magazine with a solid record of service to begonia lovers, primarily because of yeoman work by past editors. Our immediate predecessors, Ed and Phyllis Bates, deserve society-wide appreciation for five years of heavy behind-the-scenes work.

It's our intention to continue as they did to publish a well-balanced *Begonian*.

One of strengths of ABS is the healthy diversity of its membership, not only geographically but also in levels of interest. There are botanists and advanced hobbyists with superspecialties such as nomenclature and orthography. There are members with just a few window-sill begonias. And there are members who fall in all places inbetween.

This, our first issue, illustrates how we plan to reflect that diversity. You'll find A. I. Baranov advancing the botanical knowledge of *Begonia*, while Elda Haring and Kit Jeans enlighten the non-scientists among us. Everyone, of course, will benefit by reports on the affairs of ABS.

After all, The Begonian is an ABS

bulletin, America's only begonia journal, and a primary source of begonia culture information. All of these roles must be filled.

There's no reason you couldn't get in on the act. ABS members would love to read about how you finally conquered powdery mildew on your elatiors or the history you traced of *B. involucrata*.

We always welcome articles from members—and non-members, for that matter. Please write to the editors for a copy of our guidelines for contributors.

Just a word about the black-andwhite cover and the small size of this issue:

We don't like it, either. The reason is financial. In its usual form, *The Begonian* costs more to produce than ABS had available last month.

If ABS directors authorized a dues increase to \$10 (voting was to take place after press time), the familiar *Begonian* with full-color cover will return.

-C.A. & K.B.

Flower and fruit characters of B. roxburghii

A. I. Baranov

In the second half of the 19th Century Alphonse de Candolle described many new species of *Begonia*. Unfortunately, he very seldom supplied his descriptions with illustrations. In certain cases, the reason for this might be that the species were described from incomplete herbarium material. But in other cases the reason for nonillustration of his new species remains unclear.

One species described by de Candolle but not illustrated by him is Begonia roxburghii. Thus, according to Index Londinensis⁶, the authoritative guide to botanical illustrations, the only published illustration of B. roxburghii is found in Clarke's work³ and it appears to be a drawing of a fruit and a seed (Plate I, Fig. 1). This means there has never been published any illustration of B. roxburghii's flowers. Illustrations of Begonia flowers are important for diagnostic purposes and, therefore, it is most desirable, when possible, to have such illustrations available. This is especially true with B. roxburghii, because taxonomically it is the type species for the Section Sphenanthera (Hasskarl ex A.DC. 1857) A.DC.²

For these reasons it was most gratifying for this author to have an opportunity to fill this void and to offer in this note a brief description and a plate of illustrations of both kinds of flowers of *B. roxburghii*.

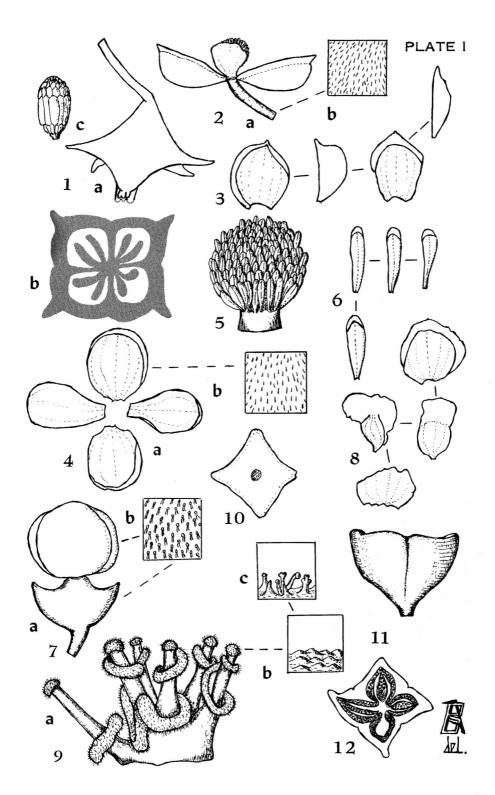
The author is grateful to Mildred Thompson and Rudolf Ziesenhenne for supplying him with flower material of *B. roxburghii* and to Harvard-Gray Library for access to literature which was necessary in preparation of this note. Special acknowledgment is due to Dr. Fred A. Barkley for his reading of the manuscript and valuable criticisms.

Begonia flowers are usually distorted when they are pressed and dried. Therefore, for this study was used flower material fixed in 70 percent alcohol. This material was dissected under a dissecting microscope when the drawings of different flower parts were made. Unfortunately, the buds of the pistillate flowers used in this study turned out to be too young and were not good enough material for drawing perianth parts.

The description of *B. roxburghii* was published in 1864 in the famous

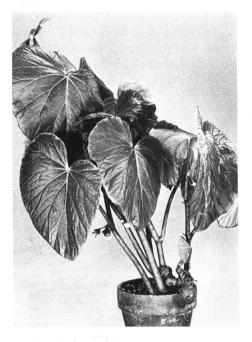
- PLATE I. Begonia roxburghii A. DC.
- Fig. 1. a—fruit; b—median cross section of the fruit; c—seed. Redrawn from Clarke's illustration of Begonia roxburghii A. DC.
- Fig. 2. Staminate flower a—side view of the flower. X 1½. b—minute hairs covering pedicel. X 18¾.
- Fig. 3. Staminate flower tepals. X 1¹/₂.
- Fig. 4. Staminate flower perianth: a—the perianth. X 1½. b—hairs on the abaxial surface of outer tepals. X 1834.
- Fig. 5. Cluster of stamens. X 3³/₄.
- Fig. 6. Stamens. X 71/2.
- Fig. 7. Pistillate flower: a—outer view of the flower bud. X 1½. b—minute glandular hairs covering the bud. X 18¾.
- Fig. 8. Tepals of pistillate flower. X 1¹/₂.
- Fig. 9. Stigmata: a—general view. X 11¼. b—and c—stages in development of stigmatic surfaces. X 45.
- Fig. 10. Top view of the ovary. X 3¾.
- Fig. 11. Side view of the ovary. X 71/2.
- Fig. 12. Median cross section of the ovary. X 334.

Born in China where he earned a law degree, Andrey I. Baranov holds a master's degree in biology from Northeastern University, where he studied with Dr. Fred A. Barkley, long-time begonia fancier. Baranov's thesis was A Comparative Study of the Gross Morphology of the Inflorescences and Flowers of Begonia. He lives in Cambridge, Mass., and has written other botanical articles about Begonia.



de Candolle work, the *Prodromus*⁴. A translation into English of a few lines from this Latin description, which are concerned with characterization of the flowers of *B. roxburghii* is: "Staminate flowers with two subrotund sepals and two more narrow petals. Pistillate flower with perianth parts larger than in staminate flower; ovary four-celled, placentae two in each cell, reniform. Flowers are drooping, pale pink or nearly white, fragrant. Filaments are very short; anthers clavate. Stigmata twisted."

One can easily see that this is a rather sketchy and incomplete description. In addition, de Candolle describes placentae as reniform while, in fact, they are linear. Another thing which seems to need explanation is that at the time of de Candolle botanists considered *Begonia* flowers as dichlamydeous, i.e., having both calyx



PHOTO/ED AND MILLIE THOMPSON from THE THOMPSON BEGONIA GUIDE

B. roxburghii

and corolla. Hence, de Candolle describes separately "sepals" and "petals," while modern botanists consider *Begonia* flowers as monochlamydeous, i.e., having only one whorl of perianth parts which are termed as "tepals." This difference in the approach to description of the perianth can be seen from the following description of the flowers of *B. roxburghii* made by this author during his study:

Staminate flower: pedicel about 1 cm long, 0.2 cm thick, covered with scattered, short, minute brown hairs. Tepals four. The two outer are white, deeply concave, about 0.5 cm deep, almost hemispherical in outline, on abaxial surface covered with minute, short, brown hairs, 1-1.2 cm long, 1-1.1 cm broad, broadly obovate, thick, subcartilaginous, with semirevolute margins. Two inner tepals are somewhat narrower, 1.1-1.2 cm long, 0.7-0.8 cm broad, more thin, membranous, white, obovate, concave, about 0.35-0.40 cm deep, with semirevolute margins and glabrous abaxial surface. Stamens are clustered in a subglobose bundle, about 0.6 cm in diameter, on a stalk about 0.3 cm in diameter. Stamens are about 0.2 cm long, clavate, subsessile; connective not extended. Pistillate flower: pedicel about 1.5 cm long, densely covered with minute, brown, glandular hairs. Tepals four to five, fleshy, on abaxial surface densely covered with minute hairs of the same kind as on pedicel. The outer tepals are 0.6-0.8 cm long, 0.8-1.1 cm broad, irregularly oval in shape; inner tepals are oval-oblong, about 0.8 cm long, about 0.5-0.7 cm broad. Stigmata branching, with about six branches, about 0.3 cm long; stigmatic papillae make up a continuous helical band;



PHOTO/ED AND MILLIE THOMPSON from THE THOMPSON BEGONIA GUIDE

Closeup of flowers growing from axils of B. roxburghii

with several turns. Ovary is about 0.24 cm long, about 0.40 cm wide, quadrangular-pyramidal, four-celled, fleshy, wingless and minutely horned at the angles. Placentae twice divided, linear. Ovules numerous.

A word here about structure of stigmatic surfaces in B. roxburghii A.DC. In this author's previous article on stigmatic surfaces in the Begoniaceae¹, stigmatic papillae of B. roxburghii were described as "low excrescences with a rugged outline." In one of the two pistillate flower buds dissected for this study, stigmatic papillae matched more or less with this description. But, in another bud which was probably a little more advanced in development, stigmatic papillae were of different shape. They might be described rather as irregularly shaped, pinnacle- or rod-like excrescences (Plate I, Fig. 9 b, c). This, it seems, may be interpreted as an indication of the fact (at least in the case with *B. roxburghii*) that the low, conical, wart-like excressences of stigmatic surfaces described by this author in his previous work represent an initial stage of development of stigmatic papillae. This observation again emphasizes the importance of the idea previously suggested by this author about the necessity of studying developmental patterns of stigmatic surfaces in the Begoniaceae¹

Although fruit characters, in the same way as flower characters, are important for taxonomic considerations in the Begoniaceae, de Candolle does not give descriptions of the fruits of *B. roxburghii* in the original diagnosis of this species. Once again, one can find this description in the Clarke work³ and in the joint work by this author and F. A. Barkley². There are some distinct differences between these two descriptions and for this reason both of them will be cited.

Please turn to page 173

Christmas in July: packing gift cuttings

Kit Jeans

Down here in the country where I live, people think there are three kinds of begonias: wax, angelwing and beefsteak. If it hadn't been for the ABS and some very generous though distant friends, that might still be the case.

It amuses me still, however, when local folks walk into my greenhouse for the first time and their jaws drop in surprise. On the one hand, they can't believe there are that many different begonias. When I tell them that most of my plants came from cuttings sent me from all over the world, they look at me as if I've been sampling liberally from the still they know I must have hidden in the woods somewhere.

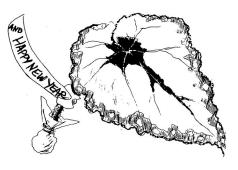
Cuttings, as you might guess, are the easiest and cheapest way you can enlarge your collection of begonias if not from a commercial greenhouse, then from friends in faraway places.

But there's an art to sending begonia cuttings through the mail.

The first requirement for sending a CARE package of cuttings is a good, stout box and, even more important, a box the right size. Thin cardboard, such as a shoebox, will not do at all.

Check with your beauty shop or photographic supply house. The supermarket is another good source. But here you have to make sure you get boxes that have not had their lids cut. Such boxes punch in too easily.

When you get your box, line it with newspaper or kraft paper or bubblepack. You can crumple a couple of



ART/KIT JEANS

B. 'Merry Christmas' as a leaf cutting

sheets of newsprint in the bottom of the box for a cushion. It's then ready for its contents.

Cuttings should have something moist around their cut stems or rhizomes. One friend I have wraps paper toweling around the stems, dips the thing into water and covers the whole thing with aluminum foil.

I use small plastic squares that I secure over moist cotton with rubber bands (not tightly). Don't secure the wet cotton with masking tape. It is very difficult to remove without breaking stems. Rubber bands can be cut. "Twistems" are easily removed. But tape hangs onto plastic, labels and stems for dear life.

Some people use cotton balls to wrap stems, some the aforementioned paper toweling. I do so many I use cotton quilt batting. It's all cotton and retains moisture best. Don't use polyester fiberfill. It gets dry as a bone in less time than the dog can chew it. Facial tissues are no better.

You'll want to identify your cuttings. This can be done by securing a plastic label in the little moisture package on the stem or by using pellon strips.

Kit Jeans collects and grows begonias at Rt. 1 Box 319, New Johnsonville, TN 37134, and writes about them occasionally.

I use pellon. It's weightless, doesn't get in the way and can stay on the cutting as it goes down into the rooting medium. (Cut strips of mediumweight pellon about five-eighths of an inch wide, three inches long with a one-inch slit in one end. Write on it with a marking pen, secure around stem by pulling label end through slit in fabric.)

Once the cuttings have been labeled and wrapped in their little moist overcoats, the easy part is done. The real art of this process is in the way you pack them in their boxes. Here, it's better the box be tight shoes than too big. It doesn't do a thing for those cuttings to rattle around like a peanut in a boxcar for three days.

If the cuttings are going far, say from Tennessee to California, I put the cuttings in baggies to help retain moisture and, in cool weather, to provide insulation.

Actually, I'd rather not use the plastic bags. This is because when the recipient takes the cuttings out of their nice damp cocoons, they're likely to sulk and go limp like kids. If they're not put in plastic, they will have hardened off to a degree. But they need the help over the long haul. So you pays yer money and takes yer chance.

As you layer the cuttings carefully in the box, do so to fill all the available spaces, nooks-and-crannies. Then as you go, tap the box on the surface of the table to settle the cuttings further. This is very important. I've opened boxes where there was enough empty space over the cuttings for my cat to nap—with predictable results. These cuttings invariably arrive with bruised leaves and broken stems.

After you've put all the cuttings in and tamped them as much as you think will do the job, fill the rest of the box with some things. This can be shredded newspaper, bubble pack, plastic pellets or even popcorn. It doesn't matter.

The important things are: Fill the space and use something very light. The more snug the cuttings, the better chance they'll have running the gauntlet at the Post Office.

I don't mean to infer that postal employees are a sadistic bunch who love nothing better than playing volleyball on their lunch hour with your box. They're usually too tired for that.

They merely use them to sit on while they eat. Whatever takes place, boxes do get handled, pitched, jiggled and dropped. And there's no help for it.

As for the mailing proper, don't bother to insure your packages. The Post Office ordinarily will not pay on damage to perishable goods. Send your boxes "Priority Mail." This is first class and your babies have the best chance of arriving quickly and in the best condition.

When you unwrap your box of cuttings from your friends in far-off places or greenhouses out in the boonies where the folks who live around think we're crazy to grow begonias when we could be putting down tomato plants, enjoy a little off-season holiday cheer.

There's nothing like the lovely surprises you'll find in a box of begonia cuttings. After you've got cuttings spread all over the table and wrappings all over the floor, toast your benefactor for a job well done.

You may drink whatever you like, but give the cuttings a snort of tonic like Watch-Us-Grow or Schultz Constant Feed before you put them down in the prop box.

They've had a long, hard journey.

Easy to grow: B. 'Dwarf Houghtonii'

Elda Haring

A couple of years ago when making out an annual order from Logee's catalog I noticed this description: "B. 'Dwarf Houghtonii', a practically stemless begonia, leaves of tawny plush, heavy drooping bouquets of pink bearded flowers. Looks like a low bushy B. scharffii."

For lack of space, I have given away many of the large plants in my collection, ordering instead those that appear to grow more compactly and may be kept in pots no larger in size than 5 inches.

From the description of B. 'Dwarf Houghtonii' I deemed it to be most suitable for the space I have.

The *Thompson Begonia Guide* indicates that *B*. 'Dwarf Houghtonii' is classified as shrub-like, hairy leaved, wide leaved, the origin being somewhat obscure but thought to be a chance seedling of *B. scharffiana*.

Helen Kraus in her book *Begonias* for American Homes and Gardens describes this begonia as being similar to *B. scharffii* but with lower growing habit, leaves somewhat ovate-caudate but some leaves having two to three shallow fingered lobes near the apices not unlike the "mittens" of sassafras leaves.

I have found this lovely begonia very easy to grow, although somewhat slow growing, which is in its favor so far as I am concerned. A few days after the plant was received from Logee's it was moved from the two-inch pot in which it was growing to a four-



PHOTO/WALTER HARING

B. 'Dwarf Houghtonii'

inch and eventually to a five-inch pot where it has remained for more than a year.

Here in North Carolina, the lovely flowers held close over the foliage appear throughout summer.

As B. 'Dwarf Houghtonii' will rot if overwatered, I let mine get quite dry but never to the point of wilting, then water sufficiently to wet the rootball thoroughly, and permit it to drain. It is not watered again until the top of the potting mix has dried out.

Since I use a potting mix in which soil and peat moss are incorporated, I fertilize only in spring and summer twice a month but at one-half the recommended amount of water-soluble fertilizer.

Stem cuttings root readily in my favorite propagating mix of one-third vermiculite, one-third milled sphagnum, and one-third perlite. In fact, I have kept small plants growing in this mix for many months by giving them constant feeding with Schultz Instant fertilizer.

In the shaded greenhouse and under fluorescent lights, the undersides Please turn to page 172

Elda Haring of P.O. Box 236, Flat Rock, NC 28731, is a long-time begonia grower, Begonian contributor and author. This is the first in a series on easy-to-grow begonias.

An obscure relative: B. 'Houghtonii'

Whatever happened to *B*. 'Houghtonii,' the early hairy-leaved cultivar of such great promise?

Though its dwarf form is in cultivation and commerce, the stately shrublike *B*. 'Houghtonii' is little more than a memory.

The specimen on the cover was exhibited by then-member Fred Schultz at the 1950 ABS Convention. Little seems to have been published about it since the early '50s.

B. 'Houghtonii,' thought to be a seedling of either *B. scharffii* or the very similar *B. scharffiana*, had many attributes, according to some who grew it.

Alice Nicklow, an amateur grower, described hers in *The Begonian* in July 1941:

"A winter bloomer; has rather large hairy leaves, red-veined underside; soft pinkish-white with deeper coloring at the base of the blossoms and hairy, borne on stems over a foot long. Very healthy plant; bushy and a tall grower."

An ABS research department report published in *The Begonian* in August 1951 concluded:

"It is one of the better pot plants and excellent for ground planting.... This particular begonia grows about three feet and will spread almost as wide when planted in the ground. For those growing pot plants it makes a nice addition to the lath house or house, as the case may be, because of its tendency to send many branches from the base, soon filling the pot.

"The coloring of the surface of the leaf is a little more brown than *B*. *scharffii* and the back of the leaf is a deeper red. The shape of the leaves is quite variable. . . . The size of the leaves is about half that of *B. scharffii*.

"The flowers are very soft pink but bearded with a deeper red than *B. scharffii*. The staminate flowers have four petals and the pistillate flowers five petals. The flower stems rise well away from the leaves but it is not as profuse a bloomer as *B. scharffii*."

This report attributes "discovery" of *B*. 'Houghtonii' to Dr. Arthur D. Houghton (see page 172) in 1922, but other authorities fail to confirm this as its origin.

In 1945, *Begonian* editor Maria Wilkes wrote in the March issue that begonia pioneer Alfred D. Robinson offered *B*. 'Houghtonii' in his catalog as "one of the best begonias for pots."

B. 'Houghtonii' led the list of favorite begonias of former ABS officer Hugh Hixon and his wife of Long Beach, Calif., well-known locally for their begonia collection in the late 1940s.

Hybridizer Elsie Frey even used *B*. 'Houghtonii' in her work. It is the female parent of her creation, *B*. 'Lois Applegate.'

—C.A.

BEGONIAS

The Best of the Rex Specializing in Rex Begonias The latest in hybridizing Super Savings Also, unusual varieties of rhiz., cane, and shrub-like Begonias NOW available—Rooted cuttings Plant and Rooted Cuttings list—40¢ OHNO Nursery, 31504 Foxfield Dr.

Westlake Village, CA 91361

Dr. Arthur Houghton: amazing begonia buff

He was a physician and surgeon, a Los Angeles city councilman, a founder of the American Legion, the son of a viceroy in British-held India.

He also was a horticulturist and botanist with a fascination for the Begoniaceae of North America. So he wrote a monograph about the subject, plus for good measure another one on the Begoniaceae of Cuba.

This extraordinary man was Dr. Arthur D. Houghton, for whom *B*. 'Houghtonii' and *B*. 'Dwarf Houghtonii' were named.

The major study, completed in 1924, was considered as late as 1953 as "the most comprehensive and authoritative work on begonias of this region" by begonia expert Rudolf Ziesenhenne.

Houghton died in 1938 while at work compiling yet a more comprehensive work. The 1924 monograph, prepared as a master's thesis, never was published.

However, a copy of the manuscript was placed in the ABS Library in 1952

More on B. 'Dwarf Houghtonii'

Continued from page 170

of the leaves are solid red, but in my west window this fades to a rosy pink. In any situation it remains quite compact and is always lovely.

As my plant is confined to a fiveinch pot, the leaves never attain a size larger than two inches long and $2\frac{1}{2}$ inches wide, and the plant stands up about eight inches above the pot.

Easy to grow, always attractive, with or without flowers, *B*. 'Dwarf Houghtonii' would be a fine addition to your collection. It is surely a "thing of beauty and a joy forever."



Dr. Arthur Houghton

and is available today for mail-order checkout.

Houghton was more than a scientist, however. He liked people.

"The writer of this thesis on begonias was a great plant lover and scientist, but also a humanitarian," wrote ABS member Walter Knecht in 1953.

"It has been a great privilege to know him personally. The twinkle in his eyes speaks for his humor and many will remember his fine talks on horticulture."



B. roxburghii: notes on growing it

Horticulturally speaking, *B. rox*burghii has a lot going for it.

It has been grown by ABS members and written about for decades.

The reason is simple: the late Clayton M. Kelly, once ABS research director, is credited with introducing this handsome specimen to the United States.

Kelly was a prime mover in obtaining dormant stems for the society in 1939 from G. Ghose & Co., Townend, Darjeeling, India.

Rudolf Ziesenhenne, then-director of nomenclature for ABS, told the story in *The Begonian* in November 1940.

Ziesenhenne, who was growing *B. roxburghii*, reported it was "fairly hardy, having withstood a winter in a lathhouse in Santa Barbara with a

More on B. roxburghii

Continued from page 167

Clarke's description reads: "Fruit four-celled, four-angled, with very thick walls, succulent, ultimately deliquescent." The second description is as follows: "Fruit three- to fourcelled, leathery, thick-walled, sometimes even slightly fleshy, wingless or minutely horned, globose to tetrahedral-pyramidal, opening very late on the back of the cells."

The reason for the difference between these descriptions is that the second description is not the description of the fruits in *B. roxburghii*, but the description of the fruits of members of the Section Sphenanthera to which *B. roxburghii* belongs.

Ecologically and geographically, *B. roxburghii* was described from damp lands in the province of Chittagong in Eastern Bengalia⁴. This classical naminimum winter night temperature of 37 degrees F. and day temperature in the 50s. In cooler regions it would be advisable to move it indoors with the other begonias in the winter.

"Under greenhouse and lathhouse conditions, this plant is evergreen and blooms during the summer and fall. The flowers, which are seldom seen because they are carried close to the stem, are of interest because they are fleshy and wingless. . . ."

The Thompson Begonia Guide classifies B. roxburghii as rhizomatous with the rhizome jointed at or below soil with erect stems.

It can grow to three feet tall with leaves of medium size and medium green color with small white dots and fine white hairs. The white flowers are fragrant. —C.A.

tive land of the species is located today in Bangladesh. But, as reported by *Index Kewensis*, the plant occurs also in Burma⁵.

It is hoped this brief note will contribute to the improvement of our knowledge of the subject and will add new evidence for the further taxonomic revisionary study of the group.

2. Baranov, A. & Barkley, F. A., *The Sections of the Genus Begonia*. Publication of the Herbarium of the Northeastern University. Boston. 1974. p. 21.

3. Clarke, C. B., On Indian Begonias. Jour. Linn. Soc. (Botany). vol. 18: 114-122. Pts. I-III. 1881.

4. De Candolle, A. Prodromus systematis naturalis regni vegetabilis. vol. 15, Pt. 1. Paris. 1864. p. 398.

6. Iconum botanicarum Index Londinensis. Tomus I. Oxford. 1929. p. 402.

^{1.} Baranov, A. I., Preliminary Notes on the Structure of Stigmatic Surfaces in the Begoniaceae. *Rhodora*, vol. 29, No. 818: 283-287. Cambridge, Mass., April 1977.

^{5.} Index Kewensis. Fasc. I. Oxford. 1893. p. 287.

Elda Haring

Question: I grow my rhizomatous begonias in a lathhouse on a shelf. The plants do not grow compactly, but rhizomes become long, ropey and very soft. What am I doing wrong?

Answer: The plants are not getting sufficient light to become well rounded and compact. Rhizomes and leaves should be crisp. It is apparent that the plants are dry at the rootball and have been for a long time.

Remove them to a place where they receive more light and be sure to see to it that the entire rootball is thoroughly moistened. Cut back the long ropey rhizomes to the edge of the pot to encourage new compact growth.

Question: On some of my upright begonias the stems at root level shrink and wither while the top of the plant looks good. Finally they fall over. I put damp sphagnum around the stem but that does not help.

Answer: Undoubtedly your plants have developed stem rot due to some aspect of culture. The only remedy is to re-root the top or take cuttings and throw away the old plant.

Question: I have many begonias in bloom but find I do not have male and female flowers ready at the same time. Is it possible to store pollen? If so, how?

Answer: Pollen may be stored in glassine envelopes or small plastic medicine bottles preferably placed in a larger container of plastic with a lid and kept in the refrigerator. I understand it will remain in good condition for several months.

Question: How often do you change your fluorescent light tubes to get optimum growth?

Answer: Some experts tell us to change tubes every six months; others suggest changing them when ends of tubes are starting to turn black. I must admit that mine are never changed until the tube has burned out!

Question: How do you grow the Rieger begonia 'Aphrodite Pink'? Are its requirements similar to tuberous begonias? Does it have a tuber? Does it go completely dormant? Must tips be pinched? Does it need very high humidity?

Answer: The Rieger begonias have been produced by years of hybridizing. They have *B. socotrana* and the Hiemalis tuberous begonias in their background, but they produce a thickened root rather than a rounded tuber such as that of tuberhybrida begonias.

'Aphrodite Pink' may be pinched if desired. It needs bright light and fairly cool temperatures and must never be overwatered. Fertilize only once a month.

If conditions are right it will bloom over many months. After it finishes blooming and new growth is showing at the crown, cut the plant back to about six inches in height and it will renew itself. It never goes completely dormant.

Do not give these plants full sun for leaves may be scorched. High humidity is not necessary. Do not mist or splash water on the leaves; this may cause mildew or rot.

Send questions about begonia growing to Elda Haring, P.O. Box 236, Flat Rock, NC 28731. She'll mail you her reply promptly.

ROUND ROBINS/ Hints on propagation, rooting and potting

Mabel Corwin

Many members grow orchids, gesneriads, and ferns along with their begonias. I have a couple of requests for a flight on growing orchids. If a few more people are interested, I will be happy to start a flight. We have four gesneriad flights. There are a few openings in these. If you are interested in these flights or any others, write to me.

Gesneriads

Dorothy Cox, Texas, reported on her gesneriads:

I've repotted almost everything into deep pots instead of tubs. I use a hot icepick to punch holes about an inch apart and about $1\frac{1}{2}$ inches up from the bottom of the pot. I then fill with gravel to about one-fourth to one-half inch above the holes. Then fill with potting mix as used for wicking.

I set the pots in the water trays and fill with water up to top of holes. Be sure the gravel is above the holes so the plant isn't in water. I let all this water (with fertilizer) get used until the soil in the pots is dry, but not bone dry. This causes the roots to grow down toward the moisture.

I am having to fill the trays every 10 to 12 days. I like this better than wicking as the trays stay cleaner there is no green algae. Also, if I want to take one into another room, I just set it down into a pretty container and pour in the water. It looks prettier than having the plant on a tub of water.

You will find the plants grow very fast and have lush growth.

Propagating medium

Nancy England, Michigan, gets good results with a propagating medium of one-third vermiculite, onethird perlite, and one-third Redi Earth.

Rooting in sand

Barbara Rogers, Arizona, described her method of rooting cuttings in sand:

I dampen sand and bake in 180 degree oven for two hours. I put container with small holes in bottom in another container to hold water. This keeps the sand evenly damp at all times. I put this into a plastic bag with the end left open. This lets the air circulate, but stays humid so the leaves don't dry out.

Potting up

Darlene Fuentes, California, told how she pots up rooted cuttings:

I hold a three-inch clay pot in one hand with the index finger over the hole in the bottom. I fill the pot with planter mix (don't pack).

Fill with water so mix is soupy, finger still over the hole. Then with free hand carefully take rooted cutting, place in pot, moving cutting back and forth in soupy mix until tender roots are all the way into the mix. Now hold over basin or pail or whatever, remove finger from hole and let water drain out.

As water drains, mix is drawn around tender roots and no packing is needed. I've also found that if I pinch the center out at this time I get a better plant and root system.

Mabel Corwin, round robin director, will send a newly revised flight list and other information about joining a round robin a packet of letters circulated among begonia lovers—if you write to her at 1119 Loma Vista Way, Vista, CA 92083.

ABS NEWS/ New branch, new introductions, new honors

A new Barkley branch

With longtime begonia authority Fred A. Barkley objecting, a new ABS branch just organized in Oklahoma has been named for him. Barkley then was elected branch president.

A group of 17 enthusiasts voted to name the group the Fred A. Barkley Branch at a meeting at the Barkley home in Tecumseh, Okla., on May 6.

Barkley said a branch shouldn't be named for a living person. He suggested calling it the Indian Nation Branch.

The branch organized April 8 with Mae Blanton of Lake Dallas, Tex., past director of Round Robins, in attendance. Nomenclature co-chairman Thelma O'-Reilly telephoned congratulations from California.

Once a name was selected, the branch's next official action was to endorse a proposed dues increase to \$10. Later, Bark-

THANKS TO YOU

I am proud to announce that I have built back bigger and better than ever!

Thanks to all of you who sent plants, cuttings & seeds to help me restock and for your encouragement and help, I now have a bigger greenhouse and bigger collection of Begonias!

My fall additions list will be mailed this month to all on my mailing list. If you're not on it the cost is \$1.50 to be put on it. Thanks again for your help!

> Robert Hamm 2951 Elliott Wichita Falls, TX 76308



PHOTO/OKLAHOMA BAPTIST UNIVERSITY

Ruth F. Wills (left), Dr. Fred A. Barkley and Mae Blanton at organizational meeting of new Barkley Branch in Oklahoma

ley traced the history of the genus Begonia and member Ruth Wills discussed leaf cuttings.

Regional show in Glendale

ABS will stage a western regional begonia show and sale in Glendale, Calif., Oct. 4 through 7. The decision was made to hold a show because the national con-



ABS NEWS

vention is in New York this year.

Darlene Fuentes, show coordinator, has asked that exhibitors contact her soon to discuss the number of plants they plan to bring. Her address is 2313 Hollister Terrace, Glendale, CA 91206.

S.F. show includes demonstrations

Demonstrations of propagation and potting techniques and corsage making will be conducted at the 23rd annual show of the ABS San Francisco Branch on the weekend of July 28 and 29 in Daly City, Calif.

Although the show will feature the tuberous begonias for which the branch is famous, all types of begonias will be displayed. Corsages of tuberous blossoms and branch culture brochures will be sold, in addition to many member-grown plants.

The event will be from 10 a.m. to 6 p.m. Saturday and from 11:30 a.m. to 5:30 p.m. Sunday at the Serramonte Shopping Center on Serramonte Boulevard near Interstate Route 280.

High honors for Thompsons

Edward and Mildred Thompson of Southampton, N.Y., authors of The

BEGONIAN MINI-ADS

- Woodriff's Fairyland Begonia Hybrids. List 25¢. Visitors welcome. Leslie & Winkey Woodriff, Fairyland Begonia & Lily Garden, 1100 Griffith Rd., McKinleyville, CA 95521. (707) 839-3034.
- The Good, The Rare and The Beautiful in begonias. Rex, rhizomatous, cane and shrubs. 25¢ for list. Visitors welcome. Lera's Greenhouse, P.O. Box 551, Waller, Texas 77484 (713) 372-2800.
- Exhibition Manual. Optional supplement of The Thompson Begonia Guide for subscribers and non-subscribers, 100 pages. Price \$4.95, optional binder \$3.50, including packaging and shipping. N.Y. residents add state tax. Thompson, P.O. Drawer PP, Southampton, NY 11968.
- The Plant Shop's Botanical Gardens, 18007 Topham, Reseda, CA 91335, (213) 881-4831—Welcome Wed thru Sun, 10 am-6 pm. Progressive catalog, \$2.00, refunded with first order. Poster of 18 species staghorns, \$4.00.

Thompson Begonia Guide, have been honored by The Garden Club of America and Massachusetts Horticultural Society.

The Thompsons—Millie is ABS research director—were selected to receive the Garden Club's Sarah Chapman Francis Medal for outstanding literary achievement related to horticulture and Massachusetts Hort's Silver Medal for noteworthy service in horticulture.

New introductions at show

New introductions by hybridizers Leslie Woodriff, Mike Kartuz, and Bob Cole and other plants will be for sale at San Gabriel Valley Branch's 32nd annual show and plant sale Aug. 10-12.

A preview of the show for ABS members only will take place at 6 p.m. Friday, Aug. 10, followed by a membersonly plant sale at 7 p.m. The show is open to the public Saturday and Sunday from 9 a.m. to 5 p.m.

The show will be at the Los Angeles State and County Arboretum in Arcadia, Calif. Show plants will be accepted Thursday, Aug. 9, from 6 to 10 p.m. Judging takes place Friday morning, Aug. 10.

Mini-ads are \$1 per line per insertion with a minimum of \$4. A line is about 36 characters. Payment must accompany order. Send to Pat Maley, advertising manager, 1471 E. Madison, El Cajon, CA 92021.

- The Gift Horse Greenhouse begonias, violets, episcias, cuttings only. List 75[¢]. Kit Jeans, Rt. #1, New Johnsonville, TN 37134 (615) 535-2026.
- Begonias. Blue Ribbon Winners. Odd. Rare. Unusual. Price list 50^e or stamps. Begonia Paradise Gardens, 9471 Dana Rd., Cutler Ridge, FL 33157. (305) 251-5836.
- Violets Begonias Episcias Cuttings only. Send 35¢ for list. Wilson's Greenhouse, Route 1 Box 165-4 Ozark, MO 65721
- Begonias. Featuring Wally Wagner hybrids, gesneriads, miniatures for light gardens. List 50[¢]. Pat Morrison/Jim Heffner, 5305 S.W. Hamilton St., Portland, OR 97221.

SEED FUND/ The much sought-after B. lubbersii—and more

Linda Miller, director, Clayton M. Kelly Seed Fund

SPECIES

JY 1 – <i>B. acuminata:</i> Cuba. Shrub-like, small crinkled leaves, glossy green with bronze tips. Many large white flowers.
Germination time: 12 days Germination time: 12 days
JY 2 – B. incana: Mexico. Unusual thick-stemmed, with scruffy white hairs on
green leaves and stems. Flowers white.
Germination time: 7 days per pkt 1.00
JY 3 – B. lubbersii: Brazil. Lovely cane with long, beautifully silver-spotted
leaves, red underneath. Flowers pink. Much sought-after.
Germination time: 12 days
JY 4 – B. parilis: Brazil. This thick-stemmed plant can be trained to make a
lovely shrub. Grows to about 3 feet. Leaves are long and narrow, green
and shiny. Large clusters of white flowers.
Germination time: 16 days
JY 5 – <i>B. pringlei:</i> Costa Rica. Small rhizomatous plant. Leaves are lobed, small,
angular, covered with white hairs. Flowers white.
Germination time: 16 days per pkt 1.00
HYBRIDS
JY 6 – B. 'Glamour Picotee' per pkt .50
JY 7 – B. mixed miniature/terrarium types. Includes mostly species, many very
special varieties. Most are in too-short supply to offer separately. Some
small growing hybrids, too
GESNERIADS
JY 8 – Sinningia cardinalis per pkt .75
JY 9 – Sinningia 'Pink Flair': Mini per pkt .75
JY 10 – Streptocarpus dunnii per pkt .75
JY 11 – Streptocarpus kirkii
JY 12 – Streptocarpus nobilis per pkt .75
JY 13 – Streptocarpus stomandrus per pkt .75
Free packet of mixed rhizomatous begonias with each order this month.
Pamphlets
Begonias from Seeds—Sowing and Growingeach .25
Begonias in General-Basic Description of
Classes and Cultureeach .50

Send orders to Linda Miller, 4613 Cochran St., Simi Valley, CA 93063. Include self-addressed, stamped envelope. California residents add 6% sales tax. Checks and money orders should be made payable to: Clayton M. Kelly Seed Fund. Foreign orders: U.S. funds only.



PHOTO/MERRY GARDENS

B. parilis, the thick-stemmed species from Brazil, grows to three feet and can make a shrub. It has long, narrow leaves and large clusters of white flowers.

THE MINUTES / ABS board of directors May 21, 1979

The meeting was called to order at 7:45 P.M. by President Randall in the Fullerton Savings and Loan Building in Anaheim. Bill Walton led the pledge of allegiance and Gil Estrada read the Aims and Purposes.

Duane Campbell of New York was appointed to be in charge of the members at large. Approved. Dennis Maley was approved as slide librarian. Doug and Goldie Frost and Margaret Taylor were appointed as a committee to find a location for the Convention and Flower Show for 1980. It was brought to the attention of the Board that each branch is supposed to have a national representative. (Article IX, section 2) Since no provision is made for a branch president to vote, the rules in this section must be followed. The secretary read the minutes and they were approved as read. Correspondence was read. A motion was passed that an article be put in The Begonian concerning branch formation and relations and that Evelyn Cronin is the director of this, and interested people should direct questions about the branches to her.

Gil Estrada reported a bookstore balance on hand April 1 of \$1,229.79, sales of \$206.72, disbursements of \$13.43, leaving a balance on hand April 30 of \$1,493.08. He reported for the audit committee that the records of the 1978 Show and Convention were in order.

Ralph Corwin again requested "duty" statements from officers to be used for future officers to make the job easier. Also, he is still requesting suggestions about the by-laws, and working on those received.

Doug Frost reported the new speakers list will be mostly California people since there wasn't much response out of the state. He also reported the convention committee had contacted the Holiday Inn in Long Beach, Calif. about the 1980 Convention. Tentative dates were Sept. 11-13. A motion was passed for them to continue arrangements, and see about even a date in August.

The treasurer reported a balance on hand April 1 of \$657.08, receipts of \$1,900.84, disbursements of \$3,486.71, with a note that checks are held until sufficient funds to cover are deposited, but showing a balance April 30 of (\$928.79). \$1,000.00 was withdrawn from the special account on April 30 to be deposited May 1.

Membership Secretary Kathy Brown reported processing 220 memberships, \$1,596.50 receipts, and expenses of \$53.11. There were 3,129 members in good standing this month. Kathy reported there are still a large number of members not sending in address changes.

The secretary read the advertising manager's report. April income was \$292.50, total prepaid account \$879.85, with a credit balance of \$708.35.

Round Robin Director Mabel Corwin reported 26 flights in and 95 flights in progress.

The Seed Fund reports showed \$471.61 In receipts, expenses of \$18.10, leaving a total of \$453.51.

Darlene Fuentes reported that the regional show committee had met at her home, and that plans were moving along. Doug Frost and Ed Yeckley are plants chairmen, and Walter Barnett is arranging a new introduction table for plant sales.

Margaret Lee, judging course director, sold three judges courses, eight classification booklets, three point scoring booklets. Receipts were \$42.45 and expenses were \$38.65 which includes printing of materials. Pat Maley was issued a sophomore judge's card.

The chairman of the ballot counting committee, Wanda Elin, has secured a post office box for coming election.

The report from the nomenclature department stated eight requests for cultivar registration forms and four completed applications. The certificates of cultivar registration were ordered from the printer. The committee is surveying material toward preparation of a master file of begonia species and cultivar names, with reference material and literature citations.

The June meeting of the Board will have the report of the nominating committee.

Chuck Richardson stated that Millie Thompson is working on some questions concerning the society using the Thompson classification guide, since the guide is copyrighted. With the approval of Millie, the board voted to make the guide the official guide of the American Begonia Society without qualification.

Margaret Taylor stated that the July 29 meeting at the home of Sandovals, Orange County Branch, will be the regular board meeting for the month of July, with a donation plant table.

The minutes of the board meeting will go in bulk mail again this month.

The regional show meeting will be June 16 at 3 o'clock at Darlene Fuentes' home.

After the branch reports, the meeting adjourned at 9:30 p.m.

-Virginia J. Barnett, secretary



BEGONIAS & AFRICAN VIOLETS

25¢ to cover mailing costs for plant list

ROUTH'S GREENHOUSE Louisburg, Missouri 65685

SANTA BARBARA BRANCH OF THE AMERICAN BEGONIA SOCIETY invites you to its meeting each month except July at 7:30 p.m., on the fourth Saturday, 1232 De La Vina St. DO COME!



RUTH & WALTER PEASE 919 A Manhattan Ave., Manhattan Beach, CA 90266 (213) 379-4044 INDOOR & OUTDOOR PLANTS • EXOTICS DECORATIVE CONTAINERS • ACCESSORIES PLANT RELATED GIFTS • BOOKS • SERVICE

BEGONIAS, GERANIUMS, EXOTICS FERNS, OXALIS, CACTI, HERBS 1979-80 Catalog with Color-\$2.00

LOGEE'S GREENHOUSES (Est. 1892)

55 North Street, Danielson, Connecticut 06239

BEGONIAS

REX BEGONIA SEED RUDOLF ZIESENHENNE

\$1.00 per pkt plus 15¢ postage Calif. residents add 6% Sales Tax 1130 NORTH MILPAS STREET SANTA BARBARA, CALIFORNIA 93103



Mail order catalog

CAL-MIL PLASTICS 6100 Paseo Del Norte, Carlsbad, Californía 92008