

BROMELIANA

PUBLISHED BY THE NEW YORK BROMELIAD SOCIETY

(visit our website www.nybromeliadsociety.org)

December, 2010

Volume 47, No. 9

Tillandsia streptocarpa and *Tillandsia duratii*

by Len Colgan

(Taken from the S.A. Bromeliad Gazette, January, 2010 newsletter of the South Australia Bromeliad Society. Len Colgan is President of the Society and is a noted *Tillandsia* collector. Len focuses mainly on the astounding array of different petal colors found in the same habitat. I will try to clarify taxonomic issues at the end. Editor)

Most keen *Tillandsia* collectors would be familiar with *Tillandsia duratii* and *Tillandsia streptocarpa*, as both species are readily available through nurseries in the USA. Their natural habitats involve Bolivia, Brasil, Argentina and Paraguay. Depending upon where you draw the line between *Tillandsia paleacea* and *Tillandsia streptocarpa*, the latter species also occurs in Peru. *T. streptocarpa* is mainly found growing in trees and on cacti, whereas *T. duratii* is also found growing on the ground. In fact, I found a giant form of *T. duratii* in the Yungas, Bolivia, which was two metres long and a metre across, spread along the ground.

In some cases it is difficult to decide which of the

there are specimens that seem to key out midway between. In general, both of these species have blue-purple flowers, which are distinctly fragrant. *T. streptocarpa* is usually a smaller plant with the spikes on the inflorescence closer together. *T. duratii* is usually a larger plant with the spikes spread out along the inflorescence, and with curling leaves. The authoritative references also list a desirable form of *T. streptocarpa* with yellow flowers as *T. streptocarpa* var *aureiflora*. The habitat is listed as between Comarapa and Santa Cruz in Bolivia. As these towns are a considerable distance apart, this hardly provides useful information for anyone wishing to collect this variety. There has been some speculation as



Tillandsia streptocarpa
photo by Herb Plever



T. duratii - coiled leaves
photo by Herb Plever



Tillandsia streptocarpa
photo by Herb Plever



T. duratii var. *saxatilis*
photo by Herb Plever

NEXT MEETING - Tuesday, December 14th, 2010 at 6:00 P.M. [at the home of Michael Riley, 101 West 104th Street nr. Amsterdam](#) (7th Ave. #1 or Ind. A, B, or C trains to 103rd St.)

HOLIDAY PARTY! - Due to space limitations our traditional end of the year party is open only to members and their spouses or significant others. Michael will provide the main courses; please rsvp him at 212-666-2395 if you plan to attend, AND let him know what side dishes, salads, fruit or desserts you will bring. If you haven't seen Michael's fabulous collection of bromeliads, orchids, aroids,

to whether this might even be a yellow flowering form of *T. duratii* rather than *T. streptocarpa*.

In July 2004, I undertook my third expedition to Bolivia, this time venturing to some less-visited places between Santa Cruz and La Paz. My companions were a botanist and a student from Fundación Amigos de la Naturaleza (FAN). A more thorough account can be found in pages 206-211 of Volume 54(5) 2004 of the BSI Journal. The dominant tillandsias along our route were *T. sphaerocephala*, *T. lorentziana* (both white and blue flowered forms), *T. tenuifolia*, *T. cardenasii*, as well as the typical blue-purple flowering forms of *T. streptocarpa* and *T. duratii*.



T. streptocarpa var. *aureiflora* photo by Len Colgan



T. streptocarpa (Rio Mizque) with near white, violet and peach petals

were a number of separate plants having flowers with petal colours in the yellow-orange-brown range.

Some plants from this location later flowered in my collection in Adelaide, South Australia. Shown here are four examples of different coloured petals. The colours are, respectively, orange, yellow, yellow and brown, and yellow with a purple centre. The last one, in particular, is quite beautiful. All are fragrant. These two locations in Bolivia have certainly expanded the common views of what *T. streptocarpa* and *T. duratii* should look like.

In Moro Moro, we were directed to follow a new track down towards the Rio Mizque to seek a mysterious large purple-leaved tillandsia, with funnel-shaped offsets on stolons, growing in a tree. I could not identify it. But this general location yielded a much more amazing surprise.

We collected three flowering plants of *T. streptocarpa* (and/or *T. duratii* ?) from a single tree. At first, I thought that the different coloured petals merely indicated that the three plants were at different stages of the flowering process. But then I realized that all three were at anthesis. The plants had, respectively, pure white petals, dark violet petals, and peach coloured petals. Moreover, on the neighbouring tree, other plants of the same species had petals with even further colour variations. All were fragrant. See photos this page.

Who can explain such an amazing discovery? I will let the



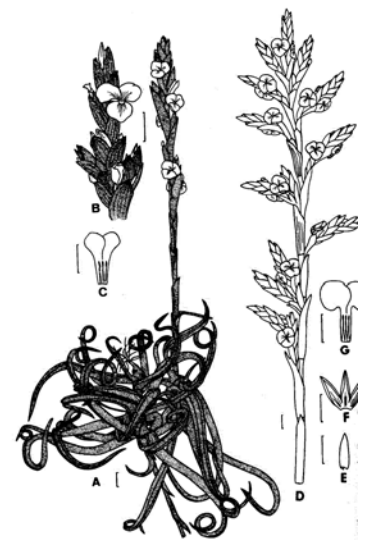
T. duratii v. *saxatilis* with yellow and orange flowers. Photo by Len Colgan



T. duratii v. *duratii*. yellow flowers purple centers Colgan

Editor's Note: The leaf blades of *Tillandsia streptocarpa* are mostly spreading and recurve only at the apex. On the other hand, the leaf blades of *Tillandsia duratii* are thick, rigid and pungent; they are markedly recurved and spirally coil around tree branches. (See photo p. 1.)

The inflorescence spikes of the species *T. duratii* Visiani are most often erect and do not spread out from the rhachis or axis of the inflorescence, and its floral bracts are densely lepidote. (See the photo on the left.) As shown in the photo on page 1, the spikes of *T. duratii* v. *saxatilis* (Hassler) L.B. Smith are recurved out from the axis and its floral bracts are glabrous or subglabrous. (Also see drawing here of the two tillandsias from Dr. Smith's Monograph on the *Tillandsioideae*.)



Left: *T. duratii*
Right: var. *saxatilis*

SCIENTIFIC FACT UPROOTED

by Mulford B. Foster

(Reprinted from the July-August, 1951 issue of the Bromeliad Society Bulletin, Vol. 1 No. 4. Mulford Foster was the first President of the Bromeliad Society International. He was a noted naturalist and explorer of South America who became hooked on bromeliads. With his wife Racine, Mulford wrote an account of their adventures in a best selling book, "Brazil, Orchid of the Tropics". In many different explorations, he discovered or rediscovered hundreds of species and he was popularly known as the "Father of the Bromeliads". With the thousands of plants he brought back, Mulford created a bromel paradise called Bromel-La in Orlando, Florida.)

For the past twenty-seven years I have literally lived under a canopy of Spanish Moss, here in Florida. I have used it during these twenty-seven years on wire netting to shade my plants. I have pulled tons of it from the branches of trees. I have enjoyed the exquisite fragrance of its delicate, transparent green flowers which is released between the hours of eight and twelve on the soft April and May spring nights. (Yellow flowers are said to have been found on *Tillandsia usneoides* in Peru, and a strong yellow-petaled clone has been given the cultivar name of *Tillandsia* "Spanish Gold". Ed.)

I've seen the tiny seeds suspended on a silken parachute (the plumed tail of the seed - Ed.), but I've never planted one of those seeds nor seen the tiny plants that emerged from those seeds until a few weeks ago. Yes, I was surprised and very much thrilled. It was Easter Sunday morning.

In our garden is a very much neglected plant of *Ligustrum coriaticum*. It is a slow, cautious growing plant with leaves that appear to be only half developed....curled up and stiff but like an old bulldog its beauty seems to be in its homeliness. This *Ligustrum* was smothered with Spanish Moss, ball moss (*Tillandsia recurvata*) and a "cat's claw" begonia vine.

Each species of plant seemed bent on strangling and smothering the *ligustrum*, so I started tearing out those over-ambitious plants only to find many, many tiny *tillandsias* clinging to the *ligustrum*.



Tillandsia usneoides



Tillandsia usneoides

photo by Ken Marks

T. usneoides photo by Ken Marks fcbs

It was virtually an epiphytic plant nursery. And, not all of the little plants were those of the "ball moss" as I had thought. I found plants from one to a dozen years of age of the *Tillandsia usneoides*, and they had honest to

goodness roots!!! Roots that had held on for several years or long enough that the plant would be long enough to catch on a branch if the wind tore it loose from its birthplace. I found plants, some of them but a half inch long and others to eighteen inches long, still clinging with their little thread-like roots to the bark where the silken threaded seeds had lodged during a previous April blow.

The most common of all bromeliads, *Tillandsia usneoides*, "Spanish Moss" to us in the southern United States, has flown from tree top to tree top for many thousands of years. It has flown and grown in a magic circle down the Atlantic coast from the southeastern tip of Virginia to 500 miles south of Buenos Aires in Argentina, and from Chile to Lower California in Mexico on the Pacific coast, thence across Texas to the coast of the Gulf of Mexico over to the Atlantic. And within this circle practically all of the known species of bromeliads are found natively.

This queer plant has been and still is regarded as a parasite by the great majority of people because of its ability to live on the trees without any apparent method of feeding.

The artist and the poet have depicted its charms in pigment and poems. The Primitive has used it for a mattress and the Modern for upholstery.

(Mulford was a fine painter and wrote poetry. Ed.)

The first white man who landed on the shores of America soon saw this strange plant swaying in the trees. It was a great find for the botanist and he has given it many botanical names, first as a parasite and later upon more careful observation as an epiphyte. It grows and grows and grows. It can be torn to a thousand pieces and each piece can continue the seeming endless and rootless growth, as it does not need roots for its continuous growth. It is one of the few plants that the botanists have persistently described as one with "roots absent".

For one reason or another I have apparently gained a reputation as being one who seems to enjoy breaking down tradition and cherished beliefs, even

though that belief may have been one I nursed myself. So when I state that I have told thousands of people about the rootless bromeliad, *Tillandsia usneoides*, I have little more than related what I had already read in botanical records regarding this plant. In other words it is always easier to take the other fellow's words and repeat them without bothering about any personal investigation.

And so, one of the most cherished beliefs of the entire bromeliad world - the weird Spanish Moss with "roots absent"- was shattered. *Tillandsia usneoides* DOES HAVE ROOTS in its early stages just as every other member of the remarkable bromeliad family has, although the roots dry up and are not necessary for it in its later years. □

NEWS and NOTES

HOLIDAY PARTY - Please note that the date has been changed from December 7th to December 14th to accommodate our gracious host Michael Riley. **2010 DUES** are payable beginning this month. (Wow! Wherever did the old year go?) Single and joint memberships are \$25.00; an out-of-town subscription to BROMELIANA is still \$8.00 and an overseas subscription is \$12.00. Mail your check payable to N.Y. Bromeliad Society to Barbara Lagow, 54 W. 74th St. N.Y.C. 10023 or pay your dues at the next meeting. Please pay your dues promptly so our mailing list for 2011 can be set up quickly. It would be greatly appreciated. We do not relish the unpleasant task of dunning delinquents.

ELECTION - The following slate of officers and directors for two year terms was nominated: President - Les Graifman, Vice-President - David McReynolds, Treasurer - Barbara Lagow, Editor - Herb Plevier, Directors - Cynthia Percarpio, Veronica Saddler, Betsy Sherwin and Victoria Ehrlich. As always, other nominations for any position can be made from the floor. The election will be held at the Holiday Party on December 14th.

YOUR EDITOR'S ANNUAL PLEA - to induce you to write a few questions and/or comments to

start a conversation. The principles and techniques described in the articles I write or reproduce from other bromeliad sources are not written in stone; they reflect the current experience only of the writer. They need to be enhanced and/or corrected by the experience of many other growers, whether expert or novice. Please write so that a useful dialogue can take place. If you are confused by some of the technical botanical material, why not ask for clarity with a few questions? Let us hear from you! A direct question or a few lines of comment will be helpful and most appreciated.

JANUARY MEETING DATE CHANGE - The meeting will be held on **Saturday, January 8th** at 11:30 a.m. at the home of Herb Plevier, 172-34 133rd Avenue, Apt. 8A, Jamaica, NY (718-723-3783). There will be valuable pup door prizes. Travel directions will be given in the January issue of BROMELIANA.

OFFICERS

President.....Les Graifman
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Treasurer.....Barbara Lagow
Editor.....Herb Plevier

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Cynthia Percarpio
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BROMELIANA is published 9 times a year by the New York Bromeliad Society, c/o Herb Plevier, 172-34 133rd Avenue, # 8A, Jamaica, NY 11434. email address: hplever@nyc.rr.com