



“I’ve always been a frustrated plant explorer. When I was a little kid, while all my friends were playing touch football or baseball on the corner lot I was reading everything I could find on the jungle, the plants, the birds and other wildlife.”

—Dr. Charles Sacamano
Extension Landscape Horticulturist
and Plant Explorer

Stalking Houseplants in Mexico

The Search for Interiorscapes

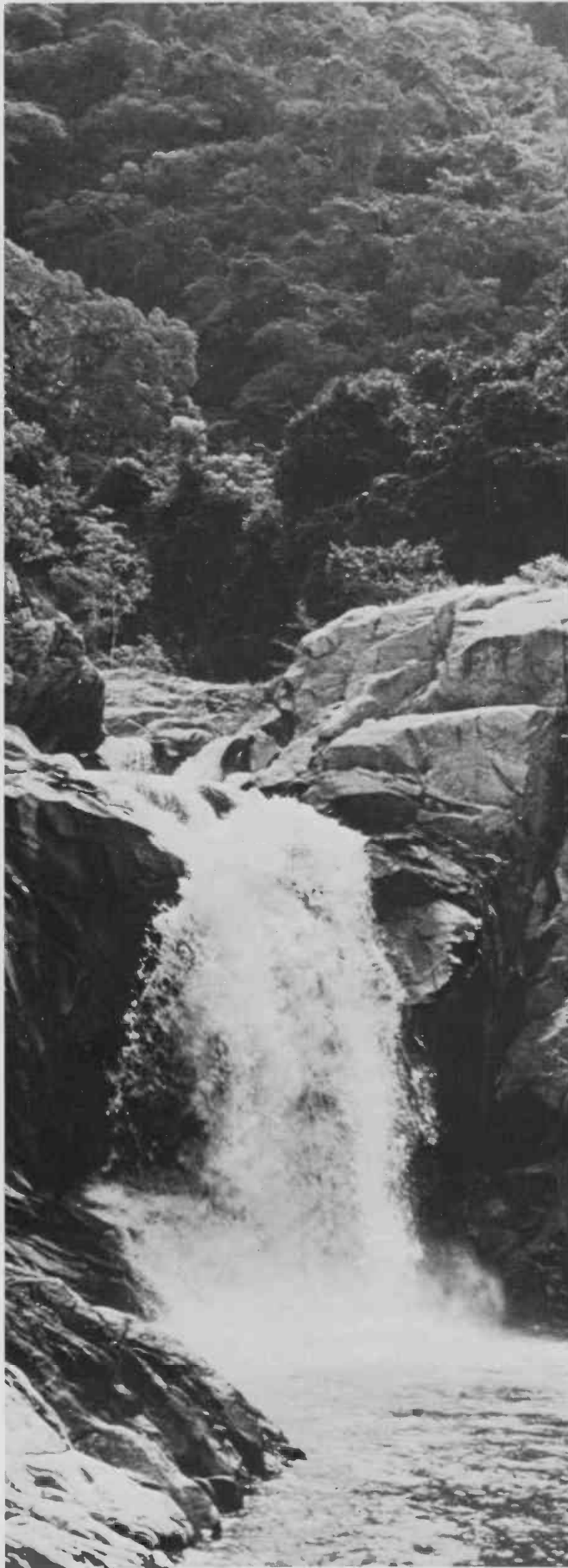
by Lynn G. Ketchum

In great grandma’s day no Victorian parlor was complete without a healthy stock of cast iron plants, parlor palms and Boston ferns. These were the fashionable houseplants of the day. But just like architecture, automobiles and fashion the “look” of houseplants has changed. Heart leaf philodendrons replaced cast iron plants, bromeliads followed those and now ficus, peace lilies and Chinese evergreens are in vogue.

The public’s craving for new and unusual houseplants has become a boon to both nurserymen and plant explorers...people like Dr. Charles Sacamano who search literally the far corners of the world for those trees, shrubs and flowers to fill not only grandma’s sitting room but today’s shopping malls, office buildings, condominiums, apartments and individual family homes. No longer parlor plants but “interiorscapes.”

University of Arizona horticulturist Dr. Charles Sacamano is one of those new breed of plant explorers who understands the term. “Nowadays,” Sacamano says, “architects are designing buildings that offer much better growing conditions for indoor plants. Interior designers and interior landscapers need new kinds of plants to satisfy this situation.”

That demand, and the chance to fulfill a childhood dream led the urban horticulturist and extension specialist to the state of Jalisco, Mexico and the jungles near Puerto Vallarta. For seven months, starting in July of 1984, Sacamano combed the tropical forest for plants that he hopes will someday meet the demands of interior designers and landscapers. “Mexico has tremendous potential,” after all Sacamano adds, “Mexico has given us the poinsettia, the split leaf philodendron as well



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as assorted palms. All are plants that have distinguished themselves in the American interiorscape.”

The extension horticulturist concentrated his search for new plants along the Pacific coast within a hundred miles of Puerto Vallarta. The 175,000 square mile Nueva Galicia region lies on the same latitude as the Hawaiian islands. “A real tropical forest...complex...with a lot of interacting plant zones.”

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It is also a mysterious place, in terms of plant life. There is only a partial flora for this rugged, isolated area...no specific reference book for the plants that make this place home. All in all the Nueva Galicia offered the perfect environment for Sacamano to look for those new plants that will thrive in the low light conditions of shopping malls and residential interiors.

With 78 inches of annual rainfall, getting around the mountainous, tropical region sometimes required personal stamina and often times ingenuity. Before this expedition ended Sacamano would travel not only by four-wheel-drive truck but by boat, burro and boot.

Hiking through dense, dark forest, Sacamano traveled along streams broken by spectacular waterfalls and through gorges that led the way to jungle gardens where giant white butterflies fluttered across hills and valleys covered with thousands of plants...delicate orchids, giant tree ferns.

Some of the plants Sacamano found in this untapped nursery were not only new but very rare. “There were some plants of which I only found one (in seven months of looking).” Sacamano is referring to a lime green, variegated leaf vine. He discovered the vine growing in a gravel bar along a shady stream amid strangler figs and banks of aerial roots.

Often the UA horticulturist and extension specialist relied on “tips” from the local villagers who themselves cultivate exotic plants in tin cans and display them in their own interiorscapes. “The Mexican people love plants,” Sacamano says, “many times people would drop whatever they were

doing to help.” People like Eusebio Cuerva. The Puerto Vallarta gardener not only led the way to caches of strange plants hidden in the depths of the forest but he also taught the university professor the art of “leaf” potting . . . fashioning plant containers from green jungle leaves.

Although Sacamano longed for such a jungle adventure, the sun-loving researcher admits the “Indiana Jones” image and the glamour of jungle exploration quickly wore off in a place where travel often was dictated by one’s ability to wield a machete and where a good night’s sleep depended on the tight weave of mosquito netting. “It wasn’t like strolling around the set of a “Tarzan” movie,” Sacamano explains. “It’s a hot, steamy, mysterious place where it’s easy to get lost and you have to take precautions.”

The plant expert learned about jungle precautions after a run-in with one of the region’s more notorious residents. It happened while he collected plants in a dense thicket. “There was a snake in a shallow hole...but my attention was sort of divided because I had just found some plants I was really excited about.” So ignoring the partially hidden reptile Sacamano went about his business. Apparently, Sacamano says, his activity aroused the



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snake’s curiosity. The snake climbed a small tree, all the time watching the plant explorer work. When Sacamano finally took notice, he realized the glowing eyes staring over his shoulder belonged to a “pretty big” boa constrictor. “He was four to five feet long and thicker than my forearm.”

The glowing eyes staring over his shoulder belonged to a “pretty big” boa constrictor.

And there were other run-ins with Mexican wildlife...in the field and at home. Sacamano’s beach front apartment became a haven for “live-in” salamanders, land crabs and giant bats. Although Puerto Vallarta gained international notoriety as the principal location for the film “Night of the Iguana,” the UA researcher quickly found out the seaside community attracts the lizard by day as well as by night. “Every morning I’d find our neighborhood iguana sunning himself on our roof.”

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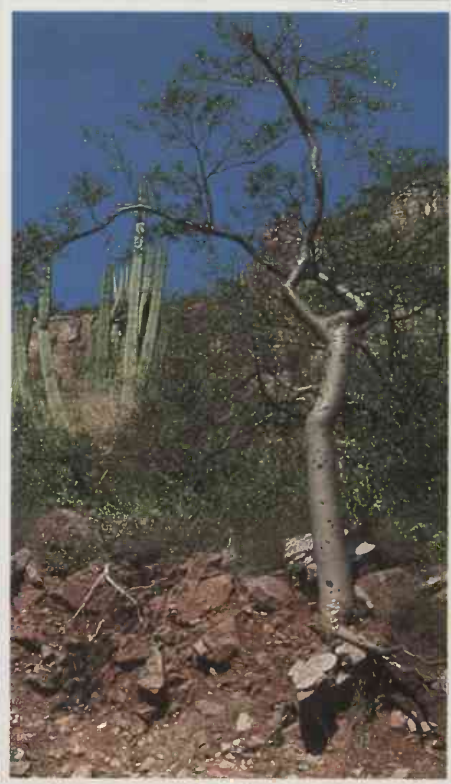




Many plants yet undiscovered in the vast tropical corners of the world will be lost to the bulldozer blade.

Photography by Charles Sacamano





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Taming Baja's Ficus

They come from very different climates, but they're roommates now. Perhaps the right word is greenhouse-mates. The plants Dr. Sacamano works with are from the steamy jungle; their neighbors at the Campus Agricultural Center greenhouse are from the dry, parched Baja Peninsula.

Dr. Chi Won Lee, UA plant scientist, is trying to domesticate desert plants, both for use outdoors in the southern Arizona home landscape and for indoors. As they come from the wild, the plants are tough; they stand up to drought conditions and they're cold hardy. "But they're not colorful enough," Lee said.

The plants he has developed for indoor use are startlingly different. The *Ficus petiolaris* and two *Busera* species (*hindsiana* and *microphylla*) have a bulbous swelling at the base of the stem, just

above the root. It's called a caudex; starch granules are stored there and later used by the plant to elongate the stem.

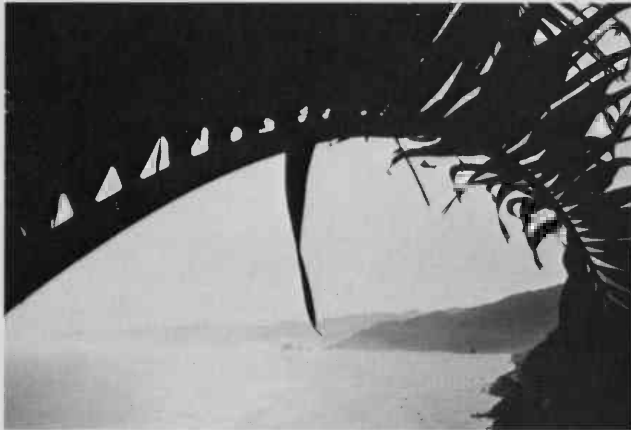
Busera hindsiana is already being marketed in Europe as a houseplant, but Lee believes that the *Ficus* species has a much greater potential. "It will grow for even the most brown-thumbed gardener." *Ficus petiolaris* needs little water and grows slowly; after ten years, it could be six feet tall.

Lee is working with growth regulators and different nutrient levels to develop the optimum size with the most attractively shaped caudex. "We need some market research, too," he said. "We need to know which size people prefer, what shape caudex, and how many stems are most appealing."

A totally new, easy-to-care-for houseplant may be in your future. - Lorraine B. Kingdon

The seven months in the jungle along the coast of Jalisco, Mexico yielded some 500 specimens, representing some 50 different species. But finding those plants with potential for the American "green" industry is only one part of Sacamano's planned research. For horticulturist Sacamano discovering the best way, the most efficient approach to propagating the most promising plants represents a second challenge.

While in Mexico Sacamano experimented with some propagation techniques in a primitive nursery set up between collecting excursions. However, the comprehensive propagation research, including tissue culturing, will continue in the greenhouses and laboratories at the University of Arizona College of Agriculture.



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During the next three years Sacamano hopes to discover the nutritional and light requirements and even develop a preliminary production schedule for those plants with the greatest market potential. "And," he says, "we intend to bring in people from the industry and consumers to see what they think of these plants."

Consumer testing will play a major role in this multi-faceted research project...a project that stretches from the jungles and beaches of Mexico to the University of Arizona greenhouses and beyond to the marketplace, the interiors of both public and residential buildings. "We want to get them out of the greenhouse and put them in homes and offices...and see how they actually hold up." That phase may be several years away.



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In the meantime the hundreds of Mexican specimens are recuperating from a trip that left the seedlings fumigated and bare rooted at the border. United States agriculture regulations forbid any plants to be brought in with foreign soil.

From the surviving plants only a few will wind up in the market place. "I think that probably six to eight show great potential...for the most part small trees which is an area of real need in interiorscape," Sacamano predicts.

One seedling is already showing some promise. With its fleshy leaves, deep green color and fragrant flower, the *clusia salvinii* may someday compete with the currently popular ficus trees.

The search for new plants has become in one way a race against time. Horticulturist and teacher

Sacamano predicts that many plants yet undiscovered in the vast tropical corners of the world will be lost to the bulldozer blade. Increasing land development threatens those plants that may have medicinal, industrial and of course landscape potential. The United Nations Educational Scientific and Cultural Organization (UNESCO) estimates that 10 million hectares (25 million acres) of tropical forest are felled each year...315 acres every six minutes.

So, time is running out for tropical plants and for plant explorers. But Sacamano hopes to buy some time for both by returning to the jungles of Mexico later this year and continuing his search for new "interiorscapes." 

Photography by Lynn G. Ketchum



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“Nowadays architects are designing buildings that offer much better growing conditions for indoor plants.”



Arizona's Budding “Green” Industry

We used to call it indoor gardening. Today “interiorscaping” has not only changed in name but in size. The industry is big business and it's growing. According to a recent survey of the American Landscape Contractors Association, interiorscaping is the fastest growing segment of the entire “green” industry. (In Arizona the “green” industries...interior landscape, nursery and landscape contracting...contribute some \$340 million a year to the state's economy.)

The popularity of interiorscaping and the resulting demand for new indoor plants adapted to both low and high light situations are due in part to changes in how and where we live. More and

more urban residents are moving to apartments, condominiums, town houses and patio homes with limited outdoor gardening space. The old backyard has given way to the atrium. But despite the change in home design the need to enjoy a part of nature survives no matter what the space.

That vital link with the natural environment is reflected in not only the places where we live but also in those where we work, shop and relax. In their designs for office buildings, shopping malls and hotels, today's architects and interior designers are accommodating the needs of a greater variety of “interiorscape” plants...plants as big as trees, as colorful as poinsettia and as exotic as orchids.



PHOTOGRAPHY BY LYNN G. KETCHUM