

Robert Louis Dressler (1927 – 2019) A Biologist for All Seasons

By Kerry Radcliffe Dressler



Bob Dressler and a *Sobralia* somewhere in Costa Rica, 2014.

Robert Louis Dressler was born on the 2nd of June 1927 during the Great American Depression in rural Taney County, Missouri. Taney County is in the Ozark Mountains, home of the hillbillies, a fiercely independent but very poor people. His father, Myrl, was an Electrician who also farmed 30+ acres of rocky ground to put food on the family table. Chickens and goats were his pets and early photos show him with his pet goats at his side. From the age of 4 he would wander around the farm following the goats. He was born curious and this set the stage for his love of nature for the rest of his life.

In November of 1937, Myrl was cutting wood when he hit a knot and the saw kicked back and cut his hand. Four days later he was dead of a pulmonary embolism leaving his heavily pregnant wife, 10-year-old Bob and 3-year-old Margaret to struggle on without him. Rachel Catherine Quigley Dressler, known as Katie to her friends, found that running a hardscrabble farm with two small children and an infant was impossible, so she moved the family to Inglewood, California to start a new life closer to her own family. Katie passed away at the age of 93.

Bob found himself at the age of 10 the man of the family. He did well in school but was always quiet and serious in nature. He rode his bicycle all over Inglewood, which was still rural in those days. As a teenager, he discovered a small private zoo owned by the famed herpetologist, Grace Olive Wiley. Grace's zoo became his escape, and he spent every spare hour helping her clean and feed her extensive snake and lizard collection. He already felt at home handling snakes and family photos show him with small snakes when he was young and still living in Missouri. The older he became, the larger his pet snakes were. Mrs. Wiley had a definite influence on his teenage years and his love of all things Herpetological during his later life, but we have to wonder if his Mother was aware of his extracurricular activities.

Robert graduated from Gardena High School in the Los Angeles City High School District in January of 1945 and was promptly drafted by the U.S. Army in the final months of World War II. The war ended shortly after his enlistment and the Army trained him in accounting to work at mustering out the soldiers coming home from overseas. During this time the word was passed around that anyone who had been accepted into a university program could muster out quickly. Robert immediately took a weekend pass and returned to Los Angeles where he applied and was accepted into the University of Southern California then returned to base to finalize his Army career.

Robert had registered for a course in zoology his first semester at USC but the professor teaching the course wasn't very interesting and he regretted his choice immediately. The second semester he enrolled in a botany course and never looked back. His major professor in botany was Louis C. Wheeler who worked in *Euphorbiaceae* and encouraged Robert's collection of Euphorbs for the university's herbarium. Bob had studied Spanish in high school and had been raised with Mexican neighbors. By the time he finished high school he was already fairly fluent in the language and he and another university student, Claude Jobe spent every chance they could collecting in California and Baja California where his language skills were in frequent use. During this time, he wrote *The Pre-Colombian Cultivated Plants of Mexico* mostly from written material. Dr. Rollins, a friend of Dr. Wheeler's who taught at Harvard, was impressed by this work and Harvard University published it in the Botanical Museum Leaflets 16(6) of 1953. In 1951 Robert left USC with a Bachelor of Arts Degree in Botany, Cum Laude and membership in the Phi Beta Kappa Honor Society.

With his degree from USC and the encouragement of Dr. Wheeler, Robert was given a scholarship to Harvard University for his doctoral studies. His major professor at Harvard was Reed C. Rollins, who was one of the founders of the International Association for Plant Taxonomy (IAPT) and the Organization for Tropical Studies (OTS). Dr. Rollins financed several field trips Robert took to Mexico to make collections for the Gray Herbarium at Harvard and he began his taxonomic study of orchids during this time. Robert has a photo taken in the early 1950s on one of his first expeditions into Chiapas and the Laguna Ocotal and Lacandón forest of southern Mexico in his usual pose of covered in mud and holding a blooming orchid in his hand. He received his Doctor of Philosophy in Biology from Harvard in 1957 with the dissertation: *The Genus Pedilanthus (Euphorbiaceae)*. During this time he also worked as a botanist at the Gray Herbarium of Harvard University. While at Harvard, he attended meetings of the American Orchid Society which was based in Boston at Harvard University at the time. There he met Mariano Ospina Hernandez, son of a Colombian President who shared his love of orchids. Robert visited Mariano and his wife Helena at their home in Medellín and they collaborated on his first book: *Orquídeas de Las Americas*, published in Colombia in 1974.



Bob in 1954 in Laguna Ocotal Grande, Chiapas México.

In 1958 Robert left Harvard and joined the Missouri Botanical Gardens as a taxonomist and editor of the *Annals of the Missouri Botanical Gardens*, where he stayed until 1963. He was also an instructor in the Henry Shaw School of Botany at Washington University, St. Louis, Missouri teaching Plant Geography and General Plant Biology and was appointed Assistant Professor there from 1961 – 1963. Over the many years to come Bob collaborated with MBOT, working with many Botanists there including Tom Croat, James Duke, William Stern, Al Gentry, Barry Hammel, Helen Kennedy, the list goes on and on. Bob was an Editor and contributor for the Orchid sections of two *Flora* for MBOT.

Another of his frequent companions in fieldwork was Dr. Calaway (Cal) H. Dodson. Bob and Cal collaborated on numerous projects over the years. In 1960 they began working on a classification of the *Maxillaria* of the Americas and together they developed a system of scents they used to attract the bees that pollinate many orchids. On a collecting trip to the Republic of Panamá in 1963, they met Dr. Martin Moynihan who had been appointed the Resident Naturalist for the Smithsonian Institute's Tropical Field Station in the Panamanian Canal Area in 1957. Martin's focus was on primate behavior and he was essentially the only scientist on staff at the Field Station on Barro Colorado Island which is located in Lake Gatun in part of the waters that make up the Panama Canal. Martin mentioned he was looking for staff scientists and Robert returned to Missouri with visions of living in the tropics on a more permanent basis. He wrote to Dr. Moynihan in April of 1963, was hired in May of that year and arrived on the first of August as Dr. Moynihan's first addition to what became known as the Smithsonian Tropical Research Institute (STRI).

Martin was putting together the budget for the Field Station in 1964-65 and he wrote Robert for his requirements for equipment and expenses during his first year's work in Panamá. Robert's return letter indicates the basic needs of a tropical taxonomist of this period:

"I don't believe I will be a great drain on the budget this year, I have my own machete and typewriter, and my other material needs will not be very great. I believe that there is already a good dissecting microscope there, and I think I'll get myself a pair of field glasses before I go. I will need some good plant press cardboard (say 500). The Turtox price is \$7.00/100, but we can probably get them at a lower price than that. I believe there are some good blotters there already and I have some of my own. I will also want a batch of plain newspaper stock. Old newspapers will do, of course, but blank paper is a little better. I've never purchased it myself, but I'm sure the Turtox price of %1.25/100 is ridiculous. I can scout around for it in the Zone after I get there. 35 or 40 dollars should be enough to allow for this item. I will rig up a dryer, but that will only need some light bulbs, a small fan and some cheap lumber. I'm sure there will be various and sundry small items, but nothing large that I can think of, so that \$50.00 or \$75.00 of "misc" should certainly cover any further things that I'll need this first year." (Letter to M. Moynihan dated June 3, 1963)

Dr. Moynihan's return letter dated June 12, 1963 showed his surprise when he said:

"You certainly don't seem to need much in the way of equipment. Hardly up to Civil Service standards! Are you sure that you don't want something expensive in fiscal year 1965?"

Bob lived on Barro Colorado Island for the first two years. This was a perfect place to set up Cal's scents and start his collection of the orchid bees and their pollinia. The Tropical Field Station was renamed the Smithsonian Tropical Research Institute (STRI) and soon became an important destination for biologists, universities, students, in short, anyone interested in fieldwork in the tropics.

The Smithsonian provided the infrastructure and its treaties with the Government of Panama allowed scientists from around the world to visit and work in relative comfort. Scholarships were offered for outstanding students both undergraduates and postdocs. Weekly talks over lunch were given by the growing number of permanent staff scientists as well as visiting scientists and students reporting on their research in progress.

It was an exciting place to be and a vast amount of fieldwork has been produced over the years. During this period STRI added two marine stations one on either side of the canal, offices and a library on Ancon Hill in the old Canal Zone and eventually the large new Tivoli office building and library on the site of the old Tivoli Hotel at the bottom of Ancon Hill between the Canal Zone and Panama City.

Part of Bob's job description was to escort visitors in the field. He never lost his love of field work and spent every spare moment out of the office exploring Panamá. Whenever he could get access into a new area perhaps where trees were being logged such as the mining camp on Cerro Colorado, or the dam being constructed in Fortuna, Chiriquí Province, Bob and a few visiting friends would head out in his old green jeep to see what they could rescue from the fallen trees. He always carried rope, a shovel, and extra food and often needed the winch on the front of the jeep and chains for the wheels to get out of mud or across a small river. Heavy rain, a frequent occurrence in Panamá at sea level, often meant a small stream that you drove through in the morning might be a raging torrent on your return.

Norris Williams first met Bob in Panamá in 1965 while taking Owen Sexton's course in Tropical Ecology from Washington University. He became interested in the orchid bees he saw coming in to two gongoras Bob had setup and asked where he could learn more about the bees. Bob recommended Cal Dodson. Cal couldn't help Norris immediately as he was in Peru that year on a Fulbright Scholarship, so Norris finished a master's degree at the University of Alabama then applied for a pre-doctoral internship with Bob at STRI in Panamá. He was the first of a host of students that moved into Bob's office, left for their doctorates then returned with their own students. After completing his PhD, Norris would bring groups of students on field trips and Bob would take them all over Panamá. These students, in turn, came back to STRI for pre or postdoctoral grants and then left for careers around the world. Among them were: Jim Ackerman, Alec Pridgeon, John Atwood, Jim Folsom, Mark Whitten and Helen Kennedy.

Bob was like a spider at the center of his web. Everyone came to him eventually. Meanwhile all these students became collaborators in his work and were people with whom he could share his ideas. In between fieldwork he was publishing new species and forming his ideas on the classification of the orchids in publications in Mexico and Colombia, collaborating with Glenn Pollard who lived and studied orchids in Mexico and Mariano Ospina who was doing the same in Colombia.

Robert shared his ideas on classification of the orchids at the 7th World Orchid Conference in Colombia in 1972. Followed in 1974 by the publishing of two books which he co-authored: *The Genus Encyclia in Mexico* with Glenn Pollard, edited by Eric Hágsater, published by the Asociación Mexicana de Orquideología, and *Orquídeas de las Americas* with Mariano Ospina published in Bogota, Colombia.



Guillermo Misast, Father Pedro Ortiz Valdivieso, S.J., Bob and Eric Hágsater, 1983, Colombia

Robert had lived a relatively solitary life after leaving Harvard until 1975 when he met Kerry Radcliffe in the library at his Ancon office. Kerry was identifying butterflies for Gordon Small, her calculus professor from the Canal Zone College. She was in the process of divorcing her first husband who was stationed in Panamá with the US Air Force and enrolled in the College to hopefully finish a degree in mathematics in order to support her two small children, Summer age 6 and Jay age 5. Gordon had encouraged her to help him with his collecting and introduced her to the tropical forests. For a girl raised in a small town north of Boston it was a real eye opener. Kerry fell in love with all things tropical.

Gordon introduced Kerry to Bob and asked if they could accompany him to any new areas he was making trips to. Their first trip was to the Rio Guánche. They parked and then crossed a wide shallow stream before starting to climb the hills on the other side. Gordon stayed by the cars to collect his butterflies and Kerry was encouraged to follow Bob because Gordon didn't want to offend Bob by ignoring him. Bob needed to cover a larger area looking for new plants while Gordon was happier remaining near a flowering bush to see what butterflies would come to him. Bob was a walker. The only thing Kerry got to see that morning was Bob's back as he walked out of sight up a hill or over rocks. She arrived where Bob had stopped for lunch just as he finished eating and took off down the trail back to the cars. Kerry was more than ready to head back as it had started to rain heavily and followed Bob back to the "shallow" stream which was now a raging torrent as water rushed from the upper reaches of the river towards the ocean.

Obviously, there was no way to cross and they had to wait for the water level to drop so they spent an hour or so just talking and waiting. Surprisingly, the avid botanist and soon to be divorcee found they had a common love of the natural world and had many other things in common. That quiet time together sparked a friendship that only ended with Bob's death 44 years later. They started going into the field regularly, and if Gordon wasn't available, Bob and Kerry went alone or with any visiting scientists or students. Kerry with a collecting net for butterflies. Bob soon proposed the idea that if Kerry would take photos for him, he could concentrate on looking for plants. He'd loan her his old Voightlander camera and pay the film and developing if she would learn how to take the photos.

Kerry, being more technologically oriented, got a few books and started learning all she could about photography. At first only a few photos on a roll were useable but with practice this improved and Kerry went on to learn other areas of photography such as film development and using the enlarger. She began using STRI's darkroom equipment and making slides for Bob's presentations. Eventually she claimed the Ancon darkroom and introduced color Cibachrome printing and enjoyed helping students solve photographic problems for their research projects.

From 1975 on, Bob and Kerry would spend a good deal of time in the field with visitors like Carl and Jane Luer, Norris and his students, visiting scientists from Europe and whoever the Missouri Botanical Gardens had sent down to live in Panamá that year to collect for them. These Pre or Post Doc students would each spend a year living in a small mobile home, collecting as many different plants as possible and pressing them for shipment back to Missouri. A number of these students have gone on to successful careers in Botany such as Jim Folsom, Sandy Knapp and Barry Hammel just to name a few.

When Kerry's divorce became final, she had to leave Panamá as she was no longer sponsored by the US Military. When she went to his office to return his camera and told him she was leaving, his reply was "why not stay here with me. You're a good field companion and photographer and we get along well" Kerry was not looking for another entanglement and said "No thank you rather forcefully". Bob was insistent and on 2nd thought she reconsidered and said she would think about his offer. Perhaps he was asking for a date not a lifelong commitment, but he got both. Bob and Kerry were married 14 months later on his 50th birthday, June 2, 1977, at Marie Selby Botanical Gardens with Carl and Jane Luer as Best Man and Matron of Honor.

Bob and Kerry soon became tired of the traffic and living in Panama City and eventually found a double-wide mobile home that they could purchase and move into an overgrown area of Curundú that the US Army had once built barracks on. The Smithsonian rented several lots and Mike and Barbara Robinson installed their own mobile home across the street. Bob Silberglied and Annette Aiello added more STRI personnel to the area. The quiet and having an area for a garden and no close neighbors made this area perfect. Mike and Barbara were like having grandparents across the street for Summer and Jay, and if Bob and Kerry were overdue on a day collecting trip, they could count on the Robinsons to look after the children when they returned home from school.

During the next 8 years before retiring from STRI, Bob circumnavigated the globe twice while attending World Orchid or Botanical Conferences and solidifying his thoughts on classification of the orchids. Kerry went along as photographer. Bob was also invited by Dr. Arturo Gomez Pompa to teach a course on Orchids at his Institute in Xalapa, Mexico. Kerry, Summer and Jay fell in love with Mexico and its varied foods while living in an apartment above a great Mexican restaurant, La Fogata Norteña. Bob made this a special time in their lives by sharing his love of Mexico and many friends there.



Gerardo Salazar, Roberto González Tamayo, Bob, Eric Hágsater, Rodolfo Solano and Miguel A. Soto,
at the inauguration of the Herbario AMO, 2002, Mexico City.

On his many trips to Mexico, Bob traveled extensively with Eric Hágsater and Norris Williams, discovering numerous New species including a new *Poinsettia* (Euphorbiaceae). Through the years Bob and Eric would meet and make field trips to Guatemala, Costa Rica, Panamá, Colombia and Ecuador. In addition to publishing new species, they eventually published *The Orchids of Mexico* in 2005, co-authored with Miguel Soto, Gerardo Salazar, Rolando Jiménez and Marco López, all of the team of the Herbario AMO in Mexico City. A second printing of the Spanish version was published in 2015. Through their joint field trips, Bob promoted a strong working group around the Herbario AMO, with many papers published in *Orquidea* (México City) and *Icones Orchidacearum*.

Bob had close ties to the people of Panamá. He worked with the University of Panamá and the head of its herbarium, Dr. Mireya Correa. He was a member of most of the country's orchid societies and co-founded the Panama City society with Walter Maduro. Walter and his son Andres were well to do Panamanians who were leaders in the orchid community in Panamá. Walter had a beautiful country home in El Valle de Antón in Coclé Province and Bob and Kerry would often make the weekend trek from Panama City to the weekend market there. Guaymí Indians would come to the market from their homes in the mountains bringing orchids to sell. This was a great source of scarce or unknown species of orchids for Walter and Bob.

Walter's son Andres bought property above Cerro Punta at about 2000 meters and perfect for growing orchids. Andres' farm was named Finca Dracula after his favorite genera of orchids and his extensive collections brought many Botanists to work with them. Bob named five species after Andres including *Cyrtorchilum maduroi*, *Oncidium maduroi*, *Sobralia maduroi*, *Stanhopea maduroi* and *Telipogon maduroi*. Andres, Bob and Kerry were close friends for many years until Andres' death and spent a great deal of time working together in Panamá.

Bob used his talks at the 1976 World Orchid Conference in Frankfurt, Germany and the 1981 13th International Botanical Congress Orchid Symposium in Sydney, Australia as excuses for two extended trips that circumnavigated the globe. He finally met Dr. Wilhelm Barthlott in Frankfurt with whom he'd been corresponding and sending orchid seeds to see more of his work on scanning electron microphotography of the seeds. He and Kerry looked for and photographed Old World orchids like *Neuwiedia* and *Apostasia* in Malaysia and Australia. The trip in 1976 and the trip to Australia, New Guinea and New Caledonia in 1981 produced not only hundreds of photographic slides but friends Bob would collaborate with in the future.

Everywhere he went he incorporated his findings into what became his first major book on the classification of the orchids. Many of the photographs taken on these trips were used in the volume which was printed and released by Harvard University Press in 1981, *The Orchids Natural History and Classification* which has become a classic in orchid literature.

In 1984 Dora Emilia de Retana, the Director of the Lankester Botanical Gardens in Cartago, Costa Rica, asked Bob to come up from Panamá and present a short course on classification of the orchids at the Universidad de Costa Rica in San Jose. Bob and Kerry had been regular visitors to Costa Rica, collecting and collaborating with Costa Rican botanists like Raphael Lucas Rodriguez since Bob began working there in the early 1960s. He often attended local orchid shows as a guest judge and Dora Emilia had heard a presentation he had given and was excited at the prospect of him teaching a full semester in Costa Rica. Bob spent one half of a sabbatical year in Costa Rica with his family and collected and photographed many Costa Rican species. The local orchid societies were always ready for a field trip and between those and his official course trips he covered much of the country. The idea of a field guild to the two countries he knew so well was already taking form and after retiring from STRI would lead to his book: *Field Guide to the Orchids of Costa Rica and Panama*, published by Cornell University Press in 1993.

Bob took the second half of his sabbatical year in Florida at the herbarium of the University of Florida in Gainesville in early 1985. Norris Williams was Keeper of the Herbarium and told Bob about a project looking for a botanist to produce a book on the wetland species of plants in Florida. It was time for a break from Panamá, so the family moved to Gainesville, Florida and with Bob as botanist and Kerry as photographer they covered every wet spot in the state and neighboring states of Georgia and Alabama. This was a completely different direction for him but he loved the challenge.

Bob retired from STRI in 1986 and moved to Florida by the end of 1985. He continued working at the University of Florida as an Associate Curator of the herbarium and finished the *Identification Manual for Wetland Species of Florida* which was published in 1987. Missouri Botanical Gardens then put him on staff again as a curator working as editor on the orchid treatments for two floras: *Manual de la Flora de Costa Rica* and *Flora Mesoamericana* from 2004 until 2006. He worked on these in the herbarium of the University of Florida as well as with frequent contact with his collaborators throughout Latin America.

Orchids were never far from his mind, and he was already planning his *Field Guide to the Orchids of Costa Rica and Panama* and his book on the many changes in classification: *Phylogeny and Classification of the Orchid Family*, both of which were published in 1993. Taxonomy and classification were becoming more a laboratory and mathematical problem rather than a visual one that could be studied with a dissecting microscope. Now a scanning electron microscope was essential as well as more expensive laboratory equipment. It is interesting to note that Bob's ideas on classification were in many respects validated. Even the internet acknowledged his classification as it was the officially accepted classification of Wikipedia unknown to Bob who never used a computer for anything other than email and typing manuscripts. Bob always maintained an open and curious mind to the new developments in classification and rather than his classification remaining static, he incorporated ideas and work from the various working groups in places like the Jodrell Laboratory at the Royal Botanic Gardens, Kew, England and Norris Williams Laboratory at the University of Florida.

Another person who has been a great collaborator and friend is the displaced Italian, Franco Pupulin. Franco says he first met Bob in Xalapa, Mexico at the 5th Simposio Latinoamericano de Diversidad y Conservación de Orquídeas in 1993. They have had a great friendship that continued with Franco's move to Costa Rica. Bob and Kerry met with him frequently on trips to Costa Rica over the years and he was instrumental in Bob accepting his last official position with Lankester Gardens in 2005. Jorge Warner was a student of Dora Emilia de Retana and followed her as the next Director of Lankester Botanical Gardens. He was a student when he attended Bob's Orchid course during 1984 at the Universidad de Costa Rica. He and Franco Pupulin and Carlos Ossenbach approached Bob to come back to Costa Rica as Scientific Coordinator of the investigators at Lankester Gardens. Franco was already there and was spurring enthusiasm for building Lankester's position as an important research station in Latin America and later the world. Bob's bags were packed before he sent his acceptance letter and he and Kerry left for Costa Rica in March of 2005. He spent his last years working at Lankester with an emphasis on the Sobralias. He and Kerry bought a small "Tico" home just around the corner from Lankester and eventually both became naturalized citizens. Before his retirement in 2015 he was Director of Lankester for about 6 months while the Gardens waited for the arrival of Dr. Mario Blanco, a doctoral student of Norris Williams and native Costa Rican to arrive and take over the Director's position. Bob had been diagnosed with Alzheimer's Disease in 2014, but he stayed on staff because the University of Costa Rica had passed a new regulation that Directors of the various University units had to hold a Doctorate degree and no one else at Lankester had one at that time. Mario was the perfect fit for the Director's position but wasn't ready to return to Costa Rica yet, so Bob took the job to keep the position open. Since then two of Franco and Bob's protégées have finished Doctorate degrees, Dr. Adam Karremans, the current Director of the gardens, and Dr. Diego Bogarin and Bob's last master's student, Melania Fernandez Campos is currently working toward her's under Dr. Jyotsna Sharma in Texas. With the addition of Bob Dressler to their staff, Lankester has grown into a highly respected institution known around the world. His last years there from 2005 until 2015 were very productive and he published 49 articles and named a total of 37 new sobralias with the students and staff of Lankester frequently as co-authors.

Bob's retirement at the age of 88 was due more to his memory loss from advancing Alzheimer's Disease rather than from his advanced age. He remained healthy and ready to go into the field at a moment's notice and was treated as a beloved Grandfather by all the personnel at the Gardens. He would visit to share a cup of coffee with students and catch up with their work from time to time, then walk back to his home and garden just around the corner.

Kerry, his wife and companion for so many years posted this announcement of his death on her Facebook page:

I am sorry to report that my husband of 42 years, Robert Dressler, died at 10 PM Tuesday, October 15, 2019 at his home in Paraíso de Cartago, Costa Rica. His life was his work and his work was roaming the tropical forests finding new species of Orchids, Bees and anything else of interest that caught his eye. I will miss his laughter and his Love.