

Robert Kral's Development as a Botanist and his Role as Teacher and Mentor

INITIAL SLIDE

I shall attempt to summarize in 15 minutes the remarkable life of Robert Kral, someone for whom I have the utmost respect, admiration, and affection. I have known him for 40 years, as Dr. Kral, Professor Kral and, now, Bob.

SLIDE – Early years

SLIDE – Howard County

Bob's family roots are in Iowa. As he put it, "They were farm people."

Both parents were of Czech descent: As Bob sometimes remarks, he is "double Czech."

His parents met while they were students at Northwestern University, both were dentists.

Bob's mother, Ione Jeanette (Kakac) Kral, was from Cresco, Howard County, in northeastern Iowa.

His father, Milo George Kral, was from Denison, Crawford County, in west-central Iowa.

Bob was born 28 February 1926 in Highland Park, Illinois.

The family moved from Illinois to Decorah, Iowa. Bob attended elementary school in Decorah and then moved to Iowa City, so his mother could pursue advanced training in orthodontics. Subsequently, the family moved to Oak Park, Illinois, where Bob attended high school.

Bob had three siblings, one of whom survived to adulthood, Ione Jean (Kral) Crane.

Bob's maternal grandfather, John Kakac, a banker, lived in Cresco, Howard County, Iowa, where he had a nursery, orchard and farm. An avid reader of Luther Burbank, grandfather Kakac had a substantial library and a love for trees. He also had an interest in mushrooms – especially edible ones – and was very knowledgeable about the local woodlands. His grandfather planted most of the shade trees in the little town. Bob was greatly influenced early by walks in the woods with grandfather Kakac. "He was my hero," Bob said.

SLIDE – Snow trillium

Bob's mother, Ione, was also very fond of plants: "Ione" is Greek for violet. Among Bob's favorite memories are those of family outings along the Turkey River between Decorah and Cresco to see spring wildflowers: Dutchman's britches, columbine, blood root, hepatica, and snow trillium. His mother planted wildflowers in a wooded area in front of the house.

SLIDE – Adolescence

SLIDE – The Disappearing Moorlands

While in high school in Oak Park, Bob enjoyed trips by bicycle to the Waukegan Dunes along the shore of Lake Michigan. He took his art supplies and painted the wildflowers there. These experiences were the basis for Bob's first botanical article, an award winning essay titled "The Disappearing Moorland," published while he was still in high school.

Bob wrote, “For many miles radiating from Chicago new homes, new stores, even small towns are springing up like mushrooms. The sandpiper’s faint, wind-borne song was once heard where busy streets now hum with traffic, and blackbirds swayed on wind-tossed cattail stalks where concrete sidewalks run past a maze of street lights and crowded homes....” He eloquently described the demise of the fringed gentian, native orchids, and other wildflowers. *His botanical interest and sensitivity to environmental issues were already well developed!*

SLIDE – USMC, Marshall Islands

Bob graduated from Oak Park-River Forest High School in 1944. During his senior year, after securing his mother’s permission, at 17, Bob enlisted in the U.S. Marine Corps. As a Marine he was trained as an aviation radioman and served in the South Pacific in the Marshall Islands.

SLIDE – Majuro Island

He has reminisced about snorkeling the coral atoll of Majuro Island and the great diversity of beautiful fishes and land snails there.

SLIDE – Undergraduate Years

In 1947 Bob went off to Iowa State to study forestry, where, during his freshman year, a professor suggested students interested in forestry should go east. Heeding this advice, Bob and several others would eventually transfer to North Carolina State to study forestry.

SLIDE – Mississippi River kayak slide 1

Following his year at Iowa State, Bob and roommate Howie Jackson made a remarkable journey by kayak down the Mississippi River, camping on sandbars and walking into town periodically for supplies.

SLIDE – Mississippi River kayak slide 2

A Corps of Engineers paddle-wheeler near Memphis delivered a message of Howie's mother's illness. When Howie left, Bob placed a classified advertisement in the Memphis *Commercial Appeal*, seeking someone to join him. A response was forthcoming, but his new companion lasted only a day: To quote Bob, "*It was a very buggy experience!*"

SLIDE – Mississippi River kayak slide 3

Bob continued the rest of the way alone, eventually leaving his kayak in the garage of a man who lived next to the river in New Orleans. Along the way, Bob was caught in a hurricane on a sandbar near Angola State Prison in Louisiana, where he could hear baying hounds. He remembers massive flocks of birds flying north ahead of the storm. He excavated a trench in the sand, staked the kayak over it, and underneath the boat sought refuge from the storm. Bob still has the paddle from the kayak trip.

SLIDE – Eddy Peak, Montana

After a year at Iowa State, Bob transferred to North Carolina State to study forestry. During summers, while a forestry student at NC State, Bob worked for the U.S. Forest Service as a fire spotter in western

Montana. His favorite post was Eddy Peak in the Thompson Falls District, overlooking the Clark Fork of the Columbia River.

SLIDE – Eddy Peak view

Bob liked the solitude of Eddy Peak, where supplies were brought up by mule pack train. He observed the bears, watched the pikas avoiding hawks, read a lot, and enjoyed the spectacular view. At North Carolina State, Bob had the great fortune of meeting Robert Godfrey who was teaching there while in residence towards the Ph.D. at Duke University. Godfrey employed Bob Kral in the herbarium mounting specimens. Bob also did the illustrations for Godfrey's revision of *Pluchea* and babysat the Godfrey's daughters.

SLIDE –

While enrolled at NC State, he joined ROTC and took a commission with the U.S. Army. After graduating with the B.S. degree in Forestry, Bob served in the Army in Korea.

While positioned as a forward observer on a mountain top – as Bob put it, "*a little too far forward*" – late in the day he waited for another soldier to come up and relieve him. He was stranded when the enemy advanced behind his post. Under fire, Bob flipped a grenade and tried to make his way back to the unit. He made it through the barbed wire just below the summit and lay flat on the ground in a wooded area. Enemy troops moved very close by. At one point an enemy soldier's shoe was close enough to touch. After dark, Bob crawled downhill to the valley and took a rifle from an abandoned jeep. He was detected, and enemy machine gun fire severed his tibia. He was taken prisoner.

Ernie Kruse, the forward observer who was to have replaced Bob, was also captured.

SLIDE – POW camp

Wounded severely, Bob spent several months in a North Korean POW camp. At one point, they wanted to amputate his leg, but Bob refused. He says the experience as a prisoner made him appreciate fly larvae “maggots.” They kept his wound clean and saved his life. While interned in the POW camp, Bob deeply appreciated the kindness of his fellow POWs.

SLIDE – Return home

He was released at the end of the Korean War in August 1953. Bob has often remarked that if he hadn't been wounded in Korea he would probably have taken a job with the U.S. Forest Service and settled in the Thompson Falls District as District Ranger. Because of his leg wound, he abandoned a forestry career and pursued botany instead.

SLIDE – Graduate School

Bob met Mabel Vanlandingham, a very fine lady, while standing in a registration line at Florida State University. They married in 1957 and were married for nearly 60 years when Mrs. Kral died in 2016. Bob and Mabel had four children, Bill, Van, George and Kathleen, and ____ grandchildren. Dr. Godfrey said while driving from Tallahassee to nearby Cairo, Georgia, for Bob's wedding, he came across Bob collecting plants along the roadside. *Now that's prophetic!*

SLIDE – R.K. Godfrey

Bob has said that the two men he studied under, Dr. Lloyd Shinnars and Dr. Bob Godfrey, influenced him greatly. He started a graduate program in botany at SMU and worked there with Dr. Shinnars before transferring to Florida State to work with Dr. Godfrey. Dr. Godfrey had received a grant from the National Science Foundation and wrote Bob asking if he would like to be his research assistant to study aquatic and marsh vegetation of northern Florida. Bob accepted the offer. After a field trip to southern Florida with Dr. Godfrey, Bob knew he had made the right decision. To quote Bob Kral: “Bob Godfrey had a knack for knowing the terrain. He loved fieldwork and he was a very good teacher in the field. I enjoyed the experience very much. Learned a lot.” Of Dr. Godfrey, Bob also said, “[He] had a wry sense of humor, and he was one of the best colleagues and companions in fieldwork that a person could hope for. And I had the good fortune that he was my major professor. He was tolerant. He had to find out if you were interested in plants. If you were, then he’d go the distance for you. He’d put up with your foibles and flaws.”

SLIDE – Influences

Bob credits Dr. William Fox at North Carolina State as the one who made him think, “*Hey, maybe I need to take a shot at botany.*” Dr. Fox was Bob’s dendrology teacher, and according to Bob taught it in a way that made a person remember it, so naturally he later employed Dr. Fox’s approaches to teaching. Bob also says “He was a remarkable person, a very kind man.”

Bob said about Dr. Lloyd Shinnars, with whom he shared a love of classical music and poetry, “I enjoyed the times we had in the field. He

was a wonderful field botanist and biologist....very knowledgeable in pollinators, and [in addition to the herbarium] kept and built a collection of insects.” Bob found him very generous and remarked, “His life was botany.”

Of Dr. Delzie Demaree, Bob said, “I’ll never forget him. I learned a lot from him. That guy was a field man par excellence, and always willing to share his knowledge. A lot of communication we had sitting around campfires – sleeping out there in the boonies. Sometimes he’d be going on enthusiastically about something, and I’d be too tired to hear it all, and I’d pass out. I’d wake up in the morning and he’d still be talking, and I would think, ‘Has he been talking all night?’ He was such a good man.”

SLIDE – Botanical career

Bob’s first teaching position was as Instructor of Botany at Northeast Louisiana State College (1958-1959).

From there, in 1959 he took a position as Assistant Professor at Virginia Tech (1959-1962), and then moved to Louisiana Tech as an Associate Professor in 1962 (1962-1965).

In 1965 he moved to Vanderbilt University as an Associate Professor of Biology and was promoted to Professor in 1974. Bob retired from Vanderbilt in 1998 as Professor Emeritus.

SLIDE – Major teaching

Bob’s major teaching responsibilities were Plant Taxonomy, Dendrology, Local Flora, and General Botany.

SLIDE – Teaching

Bob has described his courses as people-oriented.

His emphasis was diagnostics, beginning with basic plant structure and terminology. He led students to develop skills needed for analysis and identification of plants using complex dichotomous keys in a floristic manual.

He placed the students in the middle of ecosystems to help them understand relationships and interactions among species.

He emphasized reporting observations accurately, encouraging students to become expert witnesses.

SLIDE – Field emphasis

Bob's courses always had a heavy field emphasis, a practice that has been continued by his students.

SLIDE – Field emphasis

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SLIDE – Dendrology

Bob's dendrology course at Vanderbilt had a Friday afternoon, Saturday morning schedule, with weekly field trips to sites in and near Nashville. He took students on three-day excursions to the Gulf Coast with numerous stops along the way. Usually, the first night was spent at Oak Mountain near Birmingham, the second night at Open Pond in Conecuh

National Forest, and from there the barrier islands and dunes of the Gulf Coast near Destin, Florida.

SLIDE – Dendrology 2

Dendrology was a popular course, with an eclectic mixture of students.

SLIDE – Graduate mentor

Bob mentored nine Ph.D. students and two M.S. students. His doctoral students did taxonomic revisions and the masters students county floras.

SLIDE –

Bob's advice on teaching and research

- Let the plants do the teaching.
- Take the students in the field whenever possible.
- Test frequently.

His advice on research

- Go to the field for your answers: The plants are best studied in the field.
- Prepare good vouchers to document your work.
- Select a group that holds your interest.
- Draw the plants.

SLIDE – Illustrations

Bob encouraged his graduate students to draw the subjects of their investigations. He taught by example.

I sat with the master, observing him prepare illustrations. We discussed techniques and plant structure, and he answered my questions.

SLIDE – Misc. field trips

I was very fortunate to accompany Dr. Kral on some of his research trips, especially those related to his US Forest Service work on rare, threatened, or endangered forests plants.

We took an amazing trip to eastern Virginia, with stops in the Appalachian Mountains and North Carolina sandhills. Highlights were *Paxistima canbyi*, *Trillium virginianum*, and *Pyxidantha*.

SLIDE – *Lindera melissifolia*

On a trip to Arkansas, southeastern Missouri, and eastern Texas, we saw spectacular populations of *Leavenworthia aurea* in limestone glades, and *Trillium texanum*, *Trillium ozarkanum*, *Carex latebracteata*, *Lindera melissifolia*, and *Leitneria*, to name a few.

On one early season trip to Florida, we drove all night, parked in the Apalachicola National Forest and watched the sun rise to reveal a population of *Gentiana pennelliana* covered with hoar frost. We also saw *Monotropsis reynoldsiae* and other rare plants and visited the Pineola Fern Grotto.

Even when I wasn't able to make the trips, Dr. Kral returned with a large vasculum (Styrofoam cooler) filled with the most interesting fresh material imaginable. I would watch attentively as he pressed the plants

in the herbarium, while reviewing plant structure and characteristics of families, genera, and species

SLIDE – Bob pressing plants

Bob continued collecting vouchers after retirement from Vanderbilt and relocation to southern Georgia in 1998.

SLIDE

and set up an herbarium building in his back yard in Cairo.

SLIDE

Among memorable trips we've made in recent years was one to the Charleston Museum in 2005 to study type material in the Elliott Herbarium, collecting vouchers going and coming, and in the motel room pressing plants into the wee hours of the morning.

SLIDE

We've made several trips to southeastern Georgia, including one to see *Hartwrightia floridana* in 2004.

SLIDE

In 2007, we made an amazing field trip to karst ponds in Early County, Georgia, where we observed and vouchered *Rhexia salicifolia*.

SLIDE – Summary

As a teacher, Bob was generous, particularly with our most valuable resource – time.

He was patient and taught exceedingly well and – whenever possible – in the field with the living plants.

His enthusiasm and work ethic were legendary. He truly taught by example.

We were indeed fortunate to have been Dr. Kral's students, and his lessons have endured.

Thank you, Bob!