

Memorial Dedication to Dr. Harold H. Biswell¹

James K. Agee²

This conference has been named the Biswell Symposium in honor of Professor Harold H. Biswell, pioneer fire ecologist. To represent all that Harold stood for to all those who were touched by this great man is a humbling experience. The profession of fire management underwent a paradigm shift in the 1960's, and the man who, more than any other, actually shifted the focus of the fire culture was Harold Biswell. I first met Professor Biswell in the early 1960's as an undergraduate forestry student at the University of California, Berkeley. The idea of underburning forests to prevent more destructive wildfires was a revolutionary idea in California at the time, although fire was routinely used in some shrublands. Despite Dr. Biswell's contributions to our profession, he was widely criticized for the same ideas, presented in the same way, for which he received so much favorable response later in his career. Because some of his monikers, like "Harry the Torch" or "Dr. Burnwell," were acquired during the early days of controversy, I never felt comfortable with them, although "Doc" seemed acceptable to him.

Early Controversies

Two particular examples of the controversies of the early days come to mind. The first was associated with a public hearing and post-fire analysis after a human-caused wildfire near Hoberg's Resort in the early 1960's. This was the area where Doc had done some of his early prescribed burning, with Mr. Hoberg's blessings. The wildfire came up to the edge of the resort as a crowning fire, and dropped to the ground at the edge of Doc's burn unit, where it was controlled. I found the transcripts of the hearing while browsing through the unindexed stacks in the Forestry Library, University of California, Berkeley. At the hearing, Professor Biswell noted that in his opinion the fire had stopped because the fuels had been reduced in the prescribed burn area over several short-interval burns. Yet personnel from the fire suppression agency involved testified that the wind stopped exactly at the edge of the prescribed burn unit, so that a change in weather was responsible for the change in fire behavior. They were probably right that the wind slowed, but it slowed because the prescribed burned area had a dampening effect on the wildfire behavior. I was able to visit the site years later and found all the trees dead in the wildfire

area and a healthy forest in the prescribed fire area. An objective analysis was sorely lacking, continuing a pattern that had persisted since the 1920's in a religious zeal to combat all fires.

At roughly the same time, the University of California issued a press release concerning Harold's research, in which he was quoted as saying the kinds of things he was to repeat for the next three decades. The press release was a narrative with quotes from Doc sprinkled throughout the text, portions of which are presented here: "The pine forests in the Sierra Nevada were open and parklike, and the most important agent in maintaining these conditions was frequent light fires. This forest was truly a product of nature—natural man and natural environment. Since the white man has suppressed fires, Biswell pointed out, the forest vegetation and landscape have undergone profound changes. To reverse these trends, Biswell recommends adopting a trick from nature and returning to controlled fire as a tool in forest management." All those who knew Doc have heard one or more of his variations on this theme, but in those days it elicited responses such as this one from a statewide fire prevention organization: "We reproduce it here verbatim (the press release) to show what is being said by opponents of fire prevention. This is the type of opinionated misinformation being spread by some people with quotable positions." Those who knew Harold also knew he was very much an advocate of fire prevention, but that he felt that a balance between fire suppression, prevention, and use was critical. Smokey Bear just could not say it all in one sentence anymore.

A continual barrage of attacks and accusations followed Harold Biswell around the State during this period of the late 1950's and early 1960's. His colleague Harold Weaver, who worked for the USDI Bureau of Indian Affairs and had been spreading a similar message since the mid-1940's, published articles that were footnoted with a disclaimer from the agency. One had to be very courageous in those days, and it is easy for us to forget those early days. A lesser man might have retreated, but Harold strode on, focusing on spreading the message that has been repeated many times, and taking the high road in terms of his professional demeanor. The logic of that message attracted many of us, including me, to become interested in fire science as a career.

The Teacher and His Research

Harold Biswell was a great teacher. I mentioned the Biswell Symposium to a professional forest consultant, now working in southern Oregon, who was once a student at the University of California at Davis, and one evening attended

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²Professor of Forest Resources, University of Washington, Seattle, WA 98195.

a talk by Dr. Biswell on fire and forest management. He told me it was the best lecture he had ever heard in 4 years of college, and it profoundly altered his career path. And he is not alone. Doc was a great wildlife ecologist, a range ecologist, and a forest ecologist—just a wonderful teacher. He would interpret the landscape during driving trips throughout California, with a fantastic ability to recall when a field had been fertilized, or a forest underburned—and an uncanny ability to identify plants at a distance that I could not even see, much less identify. At Altamont Pass, southeast of Walnut Creek, California, a common practice of farmers was to fertilize fields using a template of letters, and the resulting letters, paid for by advertisers, would show up in visible “words” of different species composition and productivity of grasses and forbs. He would predict the species composition from a quarter mile away, and when we walked over from the highway, he was always right. His ability to integrate management into multiple facets of forest, shrubland, and grassland ecosystems gave all of his students a well-rounded education.

Harold was a true renaissance man. His first emphasis was in range management, and his work from the 1930’s in root dynamics of grasses from Nebraska is still widely cited. Although the picture of Harold on the symposium packet shows him holding a clump of giant sequoia needles, I thought at first he was holding a perennial grass and inspecting its roots, because he was never far from his range “roots.” By the time he came to California, he had been introduced to fire in the southeast United States, and began to look at fire in the ecotones between forest and grassland. Fire was commonly used in the early 1950’s in the foothills to expand grazing capacity, and Harold investigated shrub and grass response. He also worked in wildlife management, on several deer range problems, particularly in the Tehama and Lake County regions. This experience enabled him to shift emphasis to the forest zone, and in particular Hoberg’s Resort in Lake County, California, where he successfully reduced shrub invasion and fuel buildups in the pine forests of the resort. This was one of the first successful wildland-urban interface fire projects, and was evidence of both his innovative outlook and practical approach. Later, as he focused on mixed-conifer forests, he and his colleagues and students investigated soils, hydrology, fuels, and air quality effects of fire. Harold was always reminding us of the interactions between all these components of the ecosystem. When new issues arose, he was always learning more, teaching those around him, and always with an enthusiasm and energy that amazed us students.

In 1967, I was one of his research assistants working with him at Whitaker’s Forest. What energy! He could outwalk most of us, and at times outrun us. I will never forget that during one of our “little burns,” as he would call them, which we conducted with the help of inmate crews, we burned across a yellowjacket nest. Harold, an inmate, and I were kneeling around the vicinity of the nest at the time. Harold yelled and took off sprinting like Carl Lewis, leaving the inmate and I to greet the bees! I still remember the

inmate and I looking at each other, astounded, as Doc safely bounded away as if shot from a cannon. The two of us laggards, of course, provided great sport for the yellowjackets. In addition, many of the short courses and tours he led in the 1970’s and 1980’s left the attendees gasping for breath as Doc finished talking at one site, and then would proceed at an incredible pace to the next stop.

One of the strengths of Harold’s approach was a secular, rather than a revivalist, approach to prescribed fire. During the 1950’s and 1960’s, the only place where fire was commonly used in forests was in the South. At the Tall Timbers Research Center in Tallahassee, Florida, a series of conferences were held, beginning in 1962, and the “word” about fire was disseminated to a wider audience. Harold had several articles in the early issues of the conference proceedings, which have become classics since they were initially published 15 years ago. In 1967, he helped organize the first western Tall Timbers conference, held appropriately at Hoberg’s Resort, the site of some of Harold’s early prescribed burning experiments. Many of the Tall Timbers staff attended, and the concluding discussions were much like a fundamentalist revival meeting, with audience members rising and “testifying” to the benefits of fire in the forest. I was shocked—I wanted to go into fire ecology, not theology! I later realized this represented part of the ongoing institutional change in the South, and was to some extent a reaction to the earlier fire prevention “Dixie Crusaders.” Harold’s more secular western approach, focusing on the practicality of fire integration into forest management, was better received in California (and relieved me greatly!).

Turning Point

His innovative ideas remained controversial during the late 1960’s, but his tireless extension efforts attracted a growing crowd of converts, including the National Parks Advisory Board, which met at Whitaker’s Forest soon thereafter. He began to hold occasional extension tours, which soon grew in frequency and attendance. This period was a turning point in the profession’s views on fire, but turning that corner was not easy. Few of us will ever experience the professional hurdles faced by Harold and his contemporaries.

I also used to think of him as the Arthur Murray of fire—he taught many agency people to dance, as they would visibly fidget while Doc provided his frank analyses of site conditions and fire hazards, and asked probing questions, usually in front of a class or tour group. Those of us accompanying Doc were able to watch these dance lessons with amusement and often learned a few dance steps ourselves—an essential part of our education. To be put on the spot helped us think on our feet.

Publication was an important part of Harold’s contributions to our profession. He understood the need for publication in basic science outlets like *Ecology*, *Forest Ecology and Management*, or other scientific journals, and

in more extension-oriented publications, too—those that would reach the public. His book, *Prescribed Burning in California Wildland Vegetation Management*, published in 1989, was a classic integration of science and interpretation. Harold took a complex problem and presented a complex answer, but in a way that most people could understand. His emphasis on publication has carried over to many of his students and colleagues.

By examining the profession's current status, and the success of Professor Biswell's students—all of those he touched—we can conclude that Harold Biswell has left a great legacy. Dr. Harold Biswell will always be remembered as a naturalist, ecologist, scientist, artist, author, innovator, friend, and teacher. The investment he made in his students will be repaid for the remainder of our lives. The discipline of wildland fire will never be the same. Thank you, Professor Harold Biswell!

