

Dewey Caron, Preacher of Bee

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Dewey Caron

by M.E.A. McNeil

The kindly bear of a man waiting on the pier at the San Francisco Ferry Terminal could have been taken for anyone's favorite uncle but for a hint of his passion and his infusive humor showing from beneath his windbreaker. He was wearing a brocade vest trimmed with gold and black and adorned with Napoleonic bee crests – made for him with a playful wink by a friend, USDA researcher Diana Sammataro. It leaves no doubt when he calls it "the only one in the world."

He was dressed to give the last of five beekeeping lectures on a California tour and on hand to meet this writer, arriving on the boat, for an interview beforehand. That day he had reconfigured his talk, as he has every time for decades. "I'm evolving," he said as he sat down on the dock, looking over the Bay. "I learn something every day."

Perhaps the reason that Dewey Caron's 45 year career with bees has not ended with his retirement, from teaching and extension at the University of Delaware, is his observation that "I never considered that I ever had a job. It was never work; I found what I like to do. Some people think I would have made a good preacher. I think I am – a preacher of bee."

He grew up in rural Vermont helping a nearby farmer who kept bees. "Like the farmers at the time he did a little of everything. He was one of my early role models, and I loved to walk in the woods with him. He couldn't have gotten up in front of a group, but he was a marvelous teacher. I was about eight or nine when I started."

Caron's love of science led him to choose chemistry as his major at the University of Vermont, but it was "a wrong turn", and he nearly flunked out. But in an ecology course that linked biology and environment, "I went out to Lake Champlain and fell in the water, went to a brook and fell in the water, went to a bog and fell in the water, and I fell in love with looking in the water and being outside. I went from a struggling student to the dean's list because I had found my niche." He graduated in zoology and did it while supporting himself with a full time job supervising student employees in the cafeteria.

To pay for grad school, a research assistantship cinched his choice of the University of Tennessee. There, for his master's degree, "I walked around the Smokey Mountains looking for a pretty obscure group of insects, their distribution and ecology." (The insects, scorpionflies -- not flies at all -- are in an order that "in history were very important; they really radiated after the Jurassic time to as much as 10% of the insect fauna. Now they are about .1%." His asides tend to be as fascinating as the topic he pursues.)

Considering a PhD, "One of the issues was that all of my buddies were doing studies learning how to kill insects. I didn't want to do that. I was faced with the choice of going into insect fossils where there was only one job in the US, studying an obscure insect, or going with honey bees with an opportunity to keep insects alive. I went up to Cornell and met Roger Morse. I immediately saw a person who was interested in students. That was where my deep mentoring started. I learned from one of the very great teachers."

Caron began working with commercial beekeepers as soon as he arrived at Cornell in 1966. Caron also had the opportunity to teach the popular beekeeping class, which Morse had designed from an English model. That model began at the novice level, which was too ambitious to replicate at the time, so the Cornell program had only the highest level -- which eventually became the Eastern Apicultural Society Master Beekeeper Course.

As we spoke on the dock, the gulls calling and the salt air crisp, it was clear that the story that was unfolding was a love story between a man and the world of the bees.

"Roger Morse was a marvelous mentor," said Caron. "Every time he gave a talk you learned something. He was very patient with students even though he was a hard task master. He was a much better educator and communicator than he was a researcher, so most of us never ended up in the USDA."

The only university in the country at the time with a building devoted entirely to apiculture was the University of Maryland. Built in 1947, the facility had "bees out front and all along the dormitories." It was a beekeeping mecca, so, when he ran into the department chair at a national meeting in Chicago in 1969, he

asked about an opening. To his surprise, he was invited to an impromptu interview in a hotel room with several department members.

Caron's life went through some bumps and turns that read like the classic children's book *Fortunately, Unfortunately*. Fortunately, he was awarded the job of assistant professor at Maryland. Unfortunately, "The position was impossible", he said. It was a four-way split: bee inspection, extension, teaching entomology, research. Fortunately, when he reached his sabbatical year, he landed with his young family at the Tucson bee lab in its heyday. "That was the good old days when they had eight or nine researchers, and everyone had at least one technician. Martha Gilliam was still there. There was a guy who worked on nothing but echolocation in wax moths and a pollination specialist: Cauffield, McGregor, Tabor, Waller – it was a fascinating place. Over Caron's year there he investigated why bees are averse to pollinating onions. (The levels of potassium in the nectar are too high for their taste.)

Fortunately, he was hired as a professor at the University of Delaware; unfortunately, he became department head, which he found was not his forte. Fortunately, he instead taught in a cooperative Master's program in entomology in Central America, splitting his time between Delaware and Panama. Unfortunately, the Africanized bee entered Panama, but fortunately Caron caught the second swarm, involving him deeply in learning about AHB. Unfortunately, political unrest closed the Panama program which, fortunately, relocated to Costa Rica.

Most fortunately, he met his wife Nieves at The Kelloggs International Fellows Training Workshop, where she was a fellow from Bolivia and he from Delaware. They now spend part of each year in South America and part near Portland, Oregon, where he has retired with a couple of beehives near the families of his sons.

Caron was well loved as a teacher during his 27 years at the University of Delaware. He taught entomology, ecology and apiculture, carrying a full course load every semester while crisscrossing the state as advisor to the Delaware Beekeepers' Association and giving classes in his extension role. When he retired in 1988, he received the University's Excellence in Teaching award as well as recognition by the Entomological Society of America for his prowess as an educator.

His online ratings by students echo respect for him as "kind and good," "passionate," "dedicated," "awesome teacher". One student, disqualifying three quarters of the creatures on the planet as a subject for study, recommends against his class, saying "Good professor, just not a great class for anybody who isn't interested in entomology, such as myself." But more typical was imbued inspiration: "I had no interest in entomology before and now I love it." The consensus seems to be that "Dr. Caron is the man."

Teaching is a role that still invigorates him: "Talking about bees, I light up," he said. He continually reworks his material for simplicity and clarity while staying abreast of new research. "I thought after 40 years of beekeeping that I understood something, but things happen repeatedly that have thrown that out the window. I think after a few more years I will get it down."

"I teach that there is a spectrum, there are different ways to try to do things. I once thought you could do it all by a cookbook, and now I think if you can learn some of the basic biology, you can be a successful beekeeper trying to do some application. We can be anywhere from highly interventive to an interested observer... A lot of us are there because it is something that is accomplishable, so the pride is in accomplishing something. That is why these losses are unsustainable for the backyard beekeeper."

Fall apiary preparation is, in his opinion, key to good beekeeping. Early foresight results in strong spring apiaries, which is why he titles his talk "Back to the Future". He marks the fall prep period with holidays, beginning with a Labor Day assessment and closing up for winter by Columbus Day. The first hive check in spring? Valentine's Day.

He no sooner proposes that easily-remembered calendar than he teaches beekeepers to vary from it, observing and following "the cycle that we have to get in sync with for our bees." It is so individual that "The onset, peak and end of it will vary even from an apiary five miles down the road."

His fall checklist: completing honey harvest, protecting brood comb from wax moths, requeening, measuring mites, treating by IPM, checking brood patterns and food reserves, combining weak colonies. He says "The biggest killer of bees in the winter is moisture," and recommends a moisture trap or vent.

Caron is sanguine on the subject of chemical controls, saying "There is no one point that is right for balancing between treating or not treating the bees." But, "We have maintained for years that the bees are not domesticated. I don't think we can maintain that for very much longer with what we are trying to do with disease control, particularly controlling Varroa."

He recommends against breeding emergency queens, such as those from splits, which he says are inferior. To a question asking how then to raise queens without grafting, he asked those who keep bees as pets to plug their ears. Then he explained that some beekeepers debilitate a queen by clipping off a leg so that

she will still lay but, because she is injured, she will be superceded with a new queen from her fresh eggs. “Ooooh, nooo,” came a response. “I told you to plug your ears,” he said mischievously.

To laughter, he continued that, although “production is not necessarily what we are all after, you can recoup some of the beekeeping costs. You can only hide how much this costs for so long from the rest of the family.”

Caron has taught at every level. He oversaw the Master Beekeeper program at the Eastern Apiculture Society, starting in 1981, after Roger Morse transferred it from Cornell. Caron wrote the initial exam. Morse had originally intended to follow the British program that goes from novice to master. Although EAS has stayed with only the Master level, Caron has since fulfilled Morse’s vision by helping to develop full programs at Washington State University and Oregon State University.

His trip to the San Francisco area is not unusual – a talk almost every day for a week. “There is something about speaking that energizes me. In Spanish I can be tongue-tied, but in front of a group it sort of flows. It can be one-on-one, non-traditional, non-classroom teaching. I once made a four hour trip to Central Pennsylvania, spoke to five people and drove back in the rain.”

Teaching outlines and syllabi from scores of classes became his classic book, *Honey Bee Biology and Beekeeping* (Wicwak Press). He says, “Beekeeping is applied bee biology.” The book explains aspects of bee biology that determine when and how to manage a colony, a concept inspired by the teaching of Roger Morse at Cornell. The thorough book, first written in 1999, is now in its sixth printing. A new edition will no doubt include information learned since then from DNA: that the bee originated in Africa, not Asia, and Caucasian bees, which were once “readily available” have mostly submerged into the gene pool. These are small points in what is a valuable compendium of valuable information.

Caron has written five beekeeping books, numerous book chapters, over seventy scientific publications and over 300 popular articles on bees and insects. He has been the editor of newsletters for the Delaware Beekeepers Association and the regional organization MAAREC as well as BeeCraft America.

His book *Africanized Bees in the Americas* (A.I.Root, 2001) came out of his work with AHB beginning with the first invasion in Central America to his involvement in South America – which continues to the present. “African bees have a lot of good solutions. One of them is around Varroa mites. It’s a group of bees that does not do robbing. If there is robbing on their colony, they pick up and leave. Whether it is robbing by ants, a high mite number or robbing bees.”

He debunks the popularly held idea that their spread through the Western Hemisphere was caused by their accidental release. In addition to “the initial swarms that escaped in the eucalyptus grove, they raised and released queens of original African stock with no selection... His [Kerr’s] original shipment was queens from about a dozen places in Africa that were killed going through customs in Portugal... So to salvage his time in Africa he just stuffed about 40 some queens in his pocket. They were raised without any selection from the original stock, absolutely. The initial release was an accidental release, but the queens were also given to the beekeepers. The government had paid, of course, for all of this exploration. The beekeepers were paying the equivalent of a dollar or two dollars per queen. That’s how they got disseminated so quickly, so rapidly.

“Before the Africanized bees showed up in Panama in 1983, it was thought that the biological filter that was created in Venezuela was working -- starting lots and lots of beekeepers with lots and lots of gentle colonies that would dilute the Africanized bees. We were still under the impression that Africanization was a hybridization. We never recognized initially that the bee wasn’t changing. It was changing all the European stock over to what it was. So Africanized is a misnomer; there is no Africanized bee.

“Behavior of AHB colony to colony is very different. The bigger question is can an individual or a group breed a local stock? You can, it’s a slow process. But when we look at Africanized honey bees we know that there is not a beekeeper that has been able to select a stock and keep a stock unless there is a fair degree of isolation. The programs that are successful – the program in Mexico, the program in Brazil, the program in Argentina, the only three – are successful because there has been a huge government influx of money and a situation where there is some degree of isolation.. They have sought not to take Africanized bees out of the picture but to tone them down to a less defensive Africanized honey bees.” Caron also experimented with the relationship of altitude to the behavior of Africanized bees and found them more defensive in the lowlands. “I don’t like to use the word ‘aggressive’; it’s ‘defensive’.”

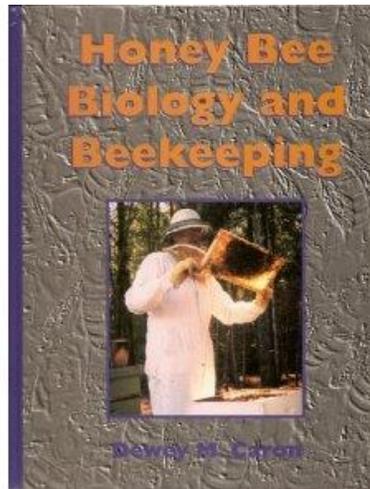
Caron’s service took him to Monmouth in Wales, on the coast of England, to run the office of Bees for Development while the director, Nicola Bradbear, left to write a grant. He learned that what helps in the Americas, Langstroth hives and access to centrifuges, may not work in many of the areas in Africa where Bradbear promotes top bar beekeeping. Nonetheless, he left wanting to see those beekeepers rise from “the lower end of the economic scale because they can only harvest a small amount. With the same bees, instead

of having 20 of those, they can have five Langstroth hives, super them and have the same amount of product and a chance to clean it up... We agreed to disagree.”

When the return ferry arrived at the San Francisco Terminal, it was clear that Caron’s bee work was only touched upon. Scrolling his credits would have to include his many roles in EAS – state representative, president, board member for many years; past president of the Eastern Apicultural Society, and, since his move to the West Coast, past president of the Western Apicultural Society.

He looks forward to continuing his travels to speak and teach, saying “I believe all people should know something about honey bee biology and how bees are managed.”

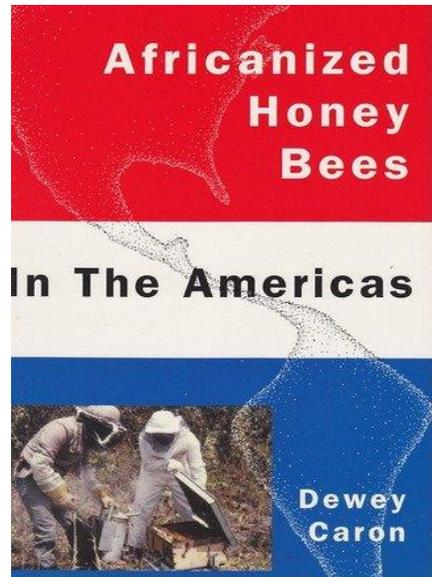
“I’m one of those very fortunate people who found a niche. I’m not done, it’s a journey. I’m in an evolution.” He waved to the departing boat, the sea breeze waving his golden bee vest, too.



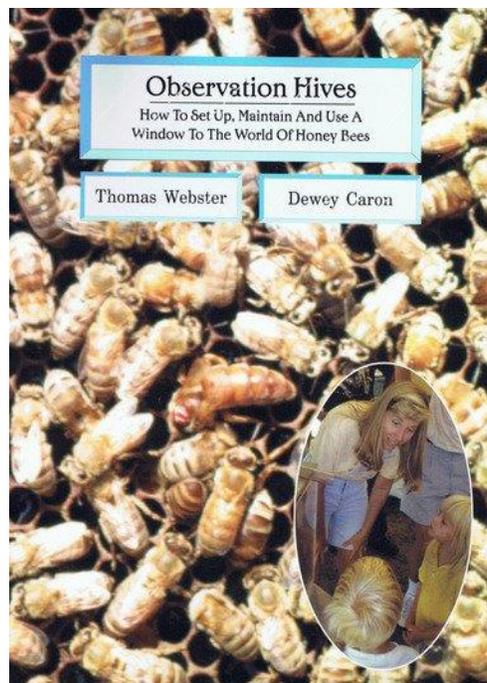
Dewey Caron’s classic comprehensive beekeeping book expands on his teaching that beekeeping is applied bee biology. It grew out of decades of teaching and belongs on every beekeeper’s reference shelf.



Caron has had a widely-appreciated 45 year dedication to teaching, observing, measuring, learning, writing, and organizing around bees.



Having caught the second swarm of Africanized bees that entered Panama, Dewey Caron set about learning their biology and behavior. He has illuminated many aspects of the story, finding, for example, that they were purposefully distributed in Brazil, not only accidentally released.



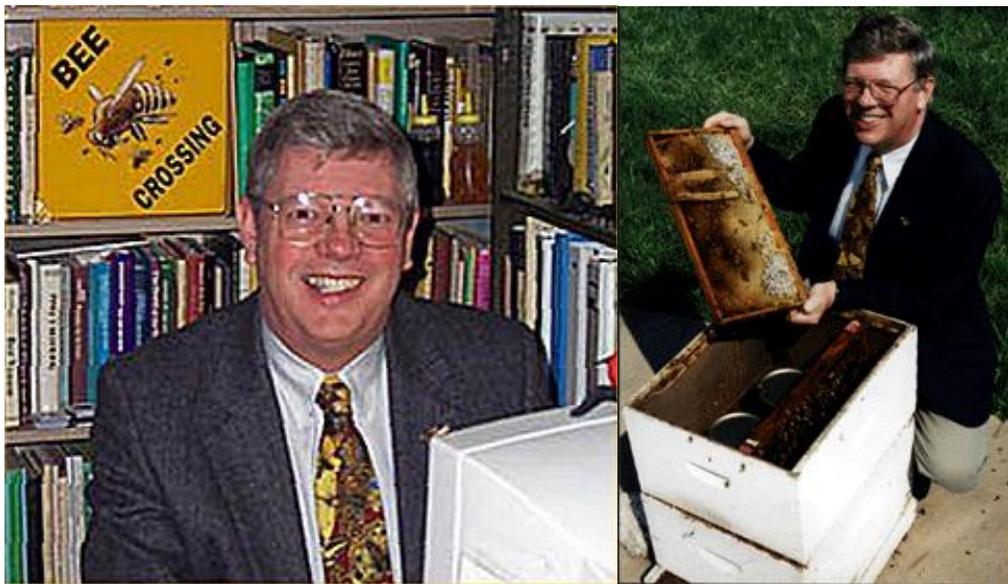
Caron's book on observation hives is one of five books on bees that he has written.



As a judge at the 2007 New Jersey Beekeepers Association Annual Honey Show, Dewey Caron checks the moisture content of an entry with a refractometer. The samples within about a 3% range will pass then be judged on other characteristics. Photo by Curtis Crowell



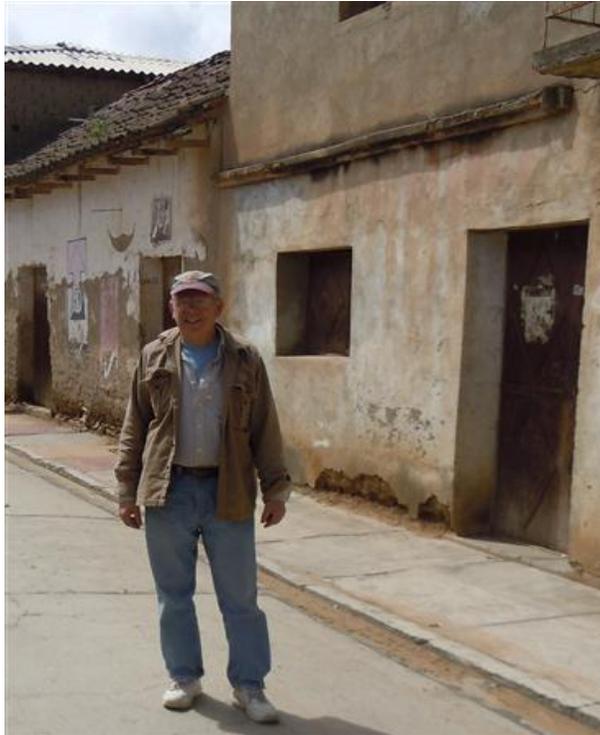
Who is the fairest of them all? Dewey Caron, who has judged numerous local and national honey competitions, looks over the entries of extracted honey at the New Jersey Beekeepers Association Annual Honey Show in 2007. Clarity, taste and crystal-free appearance will be among the qualities he will look for. Photo by Curtis Crowell



Caron dresses for the office and to go into his hives.



When he is not in the classroom or at the lectern, Caron can be found amidst the bees.



Dewey in Villa Rivera Bolivia. As a professor at the University of Delaware, he split his time teaching in Central America. He developed expertise in Africanized bees, and now, in his retirement, spends time living in Bolivia while continuing to mentor and lecture both there, in Spanish, and in the US.



Dewey wearing the brocade bee vest made for him by friend and colleague Diana Summataro.



Among Caron's university research projects was determining the saturation of pollinators on orchards.



Caron's easy smile and willingness to share his decades of experience have made him a favorite teacher in his career at the University of Delaware and now into what he laughingly calls his retirement.