

'Fly Man' researches pesky pests on Alcatraz

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Forensic entomologist Robert Kimsey of UC Davis earned the nickname 'The Fly Man of Alcatraz.' Credit: Kathy Keatley Garvey/UC Davis

When forensic entomologist Robert Kimsey leaves the UC Davis Department of Entomology for his bimonthly trips to Alcatraz Island, it's not to sightsee.

He's not there to tour the "The Rock" or contemplate the lives of the notorious criminals once housed in the former federal penitentiary--inmates like Al "Scarface" Capone, George "Machine Gun" Kelly, Robert "The Birdman of Alcatraz" Stroud or Arthur "Doc" Barker.

He's there to do research on the nuisance flies that plaque staff and tourists.

Meet Robert Kimsey, "The Fly Man of Alcatraz," a name given him by a

former guard at the penitentiary during the 2007 Alcatraz Reunion.

The professor-researcher has traveled to the island about 50 times since July 2007. When he stays overnight, he sleeps in the same cell once occupied by "The Birdman of Alcatraz"-- Cell 42 in D block.

"Stroud spent 17 years on The Rock, six years in segregation in D Block and 11 years in the infirmary where he was treated for Bright's Disease," Kimsey said.

Cell 42, basically an all-steel box with steel bars on the windows, offers a dazzling view of San Francisco.

"One day when I was working on research until 4:30 a.m., I laid down in the cell, extremely tired," Kimsey said. "I looked through the steel bars and saw the lights of San Francisco. I thought about how I'd feel if I had to spend a large chunk of my life in this cell. I'd certainly be very angry with myself."

Kimsey became involved in the fly project in July 2007 when he received a call about the annoying flies from entomologist Bruce Badzik, [integrated pest management](#) coordinator with the National Park Service, Golden Gate National Recreation Area.

Complaints rose to a feverish pitch in late August, September and October. The flies seemed to land on people as if they were rotten meat. Kimsey witnessed the incessant "shoo-fly" behavior on the docks and encountered it on a personal basis.

Kimsey identified the troubling fly as a "kelp fly" (*Fucillia thinobia*) or "cormorant fly" in the family Anthomyiidae. "But it's not a kelp fly as such," said Kimsey, who plans to publish his research in an entomological journal. "It has nothing to do with kelp. It lives in purge-

soaked soil under dead cormorants found in rookeries all around the island. It does not exist in any other place."

"Alcatraz," he said, "is the perfect place to study this fly, with three species of cormorants utilizing the island, and this is the only breeding spot for Brandt's and the pelagic cormorant in the San Francisco Bay Area."

Since federal law prohibits people from entering the rookeries — inhabited by cormorants, gulls, night herons, egrets and pigeon guillemots — Kimsey could not examine the rookeries until the nesting birds vacated the area.

Fucillia thinobia creates problems for four to six weeks as the cormorants start to leave the island, the entomologists said. In the late summer or early fall, usually in September and October, the flies vacate the rookeries on the west side of the island, and move to various parts, including the dock on the east side.

"With Bob's dedication and professionalism, he has been able to create this enthusiastic desire by island staff to know more about the biology of this fly," Badzik said. "This is an impressive thing to do on an island with a rich cultural history."

"This fly has no public health significance," Kimsey said. "They rest on human beings as they rest on any other surface; on the ground, buildings and on humans. Like [flying](#) insects found on islands, they remain near the ground and tend to flit from place to place rather than fly high in an air column.

His research involved quizzing park rangers, former prisoners and guards at the 2007 Alcatraz Reunion, held Aug. 12. "Do you recall flies ever being a problem on Alcatraz during your association with the island?" he

asked.

"Of 15 persons interviewed, all but one stated that they had no recollection of flies ever having been a problem anywhere on the island in the period prior to 1963," he said. (The island was a federal penitentiary from 1934 to 1963). The sole person describing any kind of a fly as a problem recalled small non-metallic, gray-colored flies in the kitchen.

Back then the island had no extensive rookeries as it has today, Kimsey said.

The noted UC Davis fly expert said the kelp or cormorant flies differ from blowflies (family Calliphoridae). "The typical blowfly is twice as large, stout and with a shiny green body or a dark blue abdomen," he said. "The smaller cormorant flies are slender and a dull grey-brown in color."

Kimsey and Badzik, partners in the fly problem, know The Rock well. They have scrutinized every building, the entire shoreline, the cliffs and tunnels, the rookeries, trash cans, public restrooms, sewage facilities and "certainly every potential source of flies commonly associated with humans."

The entomologists survey places off limits to the public, such as the Citadel, "part of the old Civil War fort beneath the main cell block where they used to put prisoners."

The result: none of the sites contributes to the production of flies except the rookeries.

"We discovered that the shoreline of Alcatraz offers no habitat for the genus *Fucillia*," Kimsey said. "*F. thinobia* does not breed in the piles of

decomposing kelp and other flotsam, commonly known as beach wrack."

So far, Kimsey and Badzik have identified 17 species of flies on the island. Before their research, no one knew how many or what species of flies existed on Alcatraz. However, only one — the cormorant fly — bothers staff and visitors.

Kimsey continues to place baited fly traps on the island and checks them repeatedly. He reared a colony of kelp flies in his UC Davis lab until a fungus killed them.

No stranger to Alcatraz, Kimsey remembers taking his Boy Scout troops there for overnight trips in the 1990s. He now guides members of the UC Davis Entomology Club and graduate students there. They help with the research and learn about the insects. (One graduate student created a "Fly Man of Alcatraz" T-shirt with bars and his likeness—a T-shirt available for sale at the Bohart Museum of Entomology, UC Davis campus.)

The UC Davis students also receive lessons on the history of the island from Bruce Badzik. For example, Alcatraz was the site of the first lighthouse and first U.S. built fort on the West Coast before it became a federal prison. Today the National Park Service offers year-around tours, except on major holidays.

"Alcatraz is truly a wonderful place to go," Kimsey said. "It combines history with living history. The 1920s, 30s and 40s--and the criminals and gangsters of that era--those were interesting times in American history. There was this idea in the criminal justice system that one can correct criminal behavior by isolating them from other people--forcing them to be introspective by sitting in their cell and thinking about the wrongs they committed. The name, penitentiary, has its origins with Puritans or Quakers. They felt that when you commit a wrong and do

penance, you can be reformed."

"Federal prisoners were sent to Alcatraz not necessarily because of the nature of their crime but of their deportment or behavior toward others in jails elsewhere," Kimsey said. "If they fought constantly, tried to kill the guards, or tried to escape, Alcatraz was the place to send them. They were not necessarily the worst of the worst, but the most difficult."

Kimsey, who has attended several Alcatraz Reunions, reuniting former inmates, guards and others who lived on the island when it was a federal penitentiary, is now friends with many of them. Of the former inmates he's met: "To a person, each one had no desire to be involved in recidivism after staying on the island."

For some, it involved a revelation. "They 'saw the light' as they sat on the island contemplating the errors of their ways," Kimsey said. "They fell back into the religion that they had embraced as a child. For others, it was an epiphany—a sudden realization — of why they should be good and the consequences of being bad. They didn't want to be bad any more."

"It was a pleasure to meet Bob on my first return to Alcatraz on Aug. 8, 2010 for the annual reunion," said former inmate Robert Luke, now 83, who did time from 1954 to 1959. "It was a very interesting return after being out for 51 years. I was convicted of bank robbery with an automatic weapon and was sent to Alcatraz for attempted escape from Leavenworth Penitentiary in Kansas." Luke, who now lives in Northern California, is a National Park Service volunteer on "The Rock."

Meanwhile, the flies aren't the problem they were in 2007, 2008 and 2009 (the year Kimsey was awarded a National Park Service grant).

"In 2010, the cormorants didn't come back and neither did the flies," Kimsey said. "Gulls came back but not flies. It doesn't appear they will

be a major problem in 2011."

It could be because of the reduced food supply for the cormorants, the forensic entomologist said. "The sardines and herring off shore may have diminished, perhaps because of a shift in currents."

"This has been one of the most interesting entomological projects that I have worked on in my career," Badzik said. "Through our research, we are discovering an enormous amount of information on this fly and how it is influenced by the cormorants on the island. None of the other dozen or more species of birds on the island have any relationship-at least as we know right now-to this fly."

Provided by University of California

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