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# 'Killer' Bees Speeding Up Their Move Into State

■ **Nature:** Much-publicized hybrids are now in Imperial, San Bernardino counties. But so far, attacks are few.

By KEN ELLINGWOOD  
TIMES STAFF WRITER

LA TIMES 6/2/88 B1  
EL CENTRO, Calif.

An odd afternoon ritual is underway in a cluttered corner of Imperial County's agriculture office. As on many days lately, Phyllis Cason is busy tearing the wings off bees.

The subjects—dead, of course—are refrigerated alongside the office coffee in plastic vials that have poured in from around the county during the past two months. Cason, a county biologist, scoops out a bunch, then carefully plucks the wings and arranges them under a microscope. A quick measurement and simple math roughly confirm the bees' identity in ways the naked eye cannot.

"Suspect Africanized," she declares finally.

It's been a common finding among swarm after swarm of bees examined here this spring.

The Africanized "killer" bees, once breathlessly

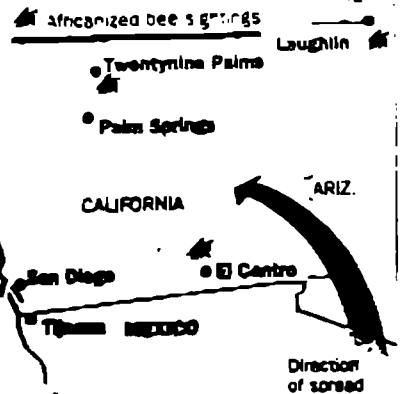
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Actual size

## 'Killer' Bees

Honeybees are not native to the Western Hemisphere. They were brought to the New World by the early European settlers. In 1956, Brazil attempted to breed bees better suited to hot climates. But African bees brought in for the experiment escaped and formed the nucleus of a wild population that has since spread 200 to 300 miles per year through Latin America and into the lower United States. They reached California in 1994.



■ **The danger:** The bees are no more harmful individually than the common honeybee, but their aggressiveness is legendary. Easily infuriated, they will swarm against a perceived danger, delivering hundreds of stings.

■ **Their spread:** Eradication efforts have failed. Experts say their arrival in the Los Angeles area is inevitable, although some hope evolutionary forces will make them less aggressive by the time they reach heavily populated areas.

■ **What they look like:** To the untrained eye, Africanized honeybees look exactly like their European cousins.

Source: Times files

### ■ How far bees will chase:

European bee: Defends up to 450 yards



Africanized bee: Defends up to half a mile



### ■ Time bees take to anger:

European bee: 19 seconds

Africanized bee: 3 seconds



Los Angeles Times

Com. 1 B1  
billed as a fast-moving threat aimed at the heart of Imperial Valley this spring as never before. And there are fresh signs—confirmed through DNA tests—that the bees are conquering new frontiers, showing up for the first time in San Bernardino County.

The bees are referred to as "Africanized" because they are descended from hybrids that escaped from a Brazilian laboratory in 1957 after experiments in which African honeybees were crossbred with native bees.

Experts charge at the "killer" tag. The Africanized hybrids are no more venomous than their European cousins, they say, and may carry less poison. The potential peril lies instead in their pugna-ciousness when defending against a perceived threat to their nests.

Swarm of hybrid bees are being reported all over Imperial County's farming country, from hayfields and backyard fruit trees to the grounds of a maximum security state prison. The county's Africanized bee hotline rings with up to 20 calls from residents daily, and sightings of the insects have become so commonplace that local biologists are no longer mapping them. One of every two swarms located recently turned out to be hybrids or probably so.

"It's going up fast," said Connie Valenzuela, a deputy county agricultural commissioner, of the number. She oversees Cason and two other biologists who have been trapping and analyzing the bees when they are not counseling jittery callers or teaching residents how to avoid trouble. (One tip: If you're chased by a swarm, run in a straight line. Don't zigzag.)

In one recent stinging incident that made front-page news locally, a California family was forced to flee their home when a swarm of the belligerent bees commanded a wall and "went crazy," said Julian Dagnino, who was stung 15 times. An attack in El Centro claimed the life of a full-grown pit bull named Killer, who wrapped his

tail around a tree and apparently disturbed a nest inside. The owner said the dog's head was dead before the pet died.

## Crossing the State Line

State agriculture officials announced last month that Africanized bees, virtually indistinguishable from ordinary honeybees but for slightly smaller wings and their ferocious demeanor, have ventured into San Bernardino County. The bees also have been seen as far north along the Colorado River as Laughlin, Nev.—a first for that state.

The bees discovered in San Bernardino County, near Twentynine Palms, prompted the state to increase by 50% the area of Southern California considered "colonized" by the hybrid honeybees. The 18,140 square miles now deemed colonized include all of Imperial County and parts of San Bernardino, Riverside and San Diego counties.

Experts say the bees, whose pace slowed considerably once they reached California's southernmost desert from Arizona four years ago, may owe their newfound headway to favorable feeding conditions spawned by that other publicity hound of the natural world: El Niño. All the extra rain left the normally hostile desert carpeted with more flowering vegetation, improving the bees' reproduction rate and providing a kind of bee superhighway to the west and north.

Scientists who once predicted the killer bees' swift arrival in Los Angeles and San Diego say it is still just a matter of time before they hit.

Because past predictions have proved faulty and because of the uncertainties presented by the mountainous topography separating the desert region from Los Angeles and Orange counties, experts are hesitant to predict how much time that will be.

"I've had a lot of questions—'What happened?'—" said Rod Lampman, entomologist for San

209

242

Bernardino County. "Well, they're still coming."

## Getting the Word Out

If Imperial County is any gauge, that arrival will not go unheralded. The county agriculture department has barraged the local populace with bilingual warnings and advice—such as conducting "bee patrols" and plugging would-be nesting gaps—ever since the bees showed up. Biologists have visited every school in the county, training teachers and administrators and showing children vials of bees and playing them a video describing the difference between Africanized and common European honeybees.

That drumbeat seems to have paid off during this unusual swarm season. Though hundreds of swarms and nests have been located, no people have been fatally stung in California. Six stinging incidents have been reported in California since the hybrid bees were first detected.

Among locals who have never encountered the bees, the topic carries more tedium than terror.

"Everybody I talk to, they all kind of shrug," said Don Suits, an El Centro carpenter who, as far as he knows, has never laid eyes on the ballyhooed bees. "It's not that big a deal—unless they come after me."

Swarms chasing down fleeing victims may sound like science fiction, but an estimated 1,000 people have died from Africanized-bee attacks in Latin America since the insects began their northward march four decades ago. Three people have died in the United States from their stings since the bees entered Texas from Mexico in 1990.

"When they do come out, you may have 2,000 come after you instead of 50," said Lampman, the San Bernardino County insect expert.

Dagnino was on the painful end of such an encounter April 30 when he returned home to the sight of his wife and three children cowering indoors and shouting. Thousands of

bees, which had taken up residence in an exterior wall, were in a frenzy, darkening the air and smothering the front door. Dagnino recalled, "It was like a movie," he said. "They were hitting the windows like they were trying to get inside. It was terrible."

The 33-year-old ranch worker said he was stung on the head and torso before he dived for cover under water in an irrigation ditch (a method discouraged by bee experts as ineffective).

"I've been in bees. I've been in everything," he said. "But I've never been bit like this."

It is that sort of attack, rare but horrifying, that the folks at the Imperial County agriculture office hope to prevent. Callers reporting suspected killer bee swarms are led through a series of questions by Valenzuela or one of her three biologists. The report is faxed to the county's pest-control division, and a specialist is dispatched immediately. County technicians are allowed to kill exposed colonies of bees by spraying a suffocating soapy water on swarms, which can form a mass the size of a basketball. They leave tricky indoor nests to hired exterminators.

Bill Smale said his El Centro pest control firm has averaged two to five bee calls a day this spring. Two years ago, he said, he might have gotten one in a week.

But it can be a touchy business. A two-man crew in a pickup truck was chased by angry bees for nearly a mile after destroying a nest, Smale said. Exterminators returning from jobs find up to 100 stingers left in their gloves.

"You don't know what it's like in that bee suit," he said. "It's worse than a rattlesnake. There's so many of them."

Sample dead bees are first analyzed at the county office. Because there have been so many, though, only bees involved in stings are sent to the state Department of Food and Agriculture in Sacramento for testing of DNA and body structure to determine if they are hybrids.

Some residents have rejected, Valenzuela said, "that old first

and ask questions later." She said that the county moves fast to reduce the Africanized swarms around settled areas but that "we can't kill all the nests."

## Zero Tolerance Is the Strategy

Eustolia Alvarez called the county when bees returned to her frontyard a week after technicians killed a swarm there. She peered out the front door as a technician donned a bee suit to spray a fist-sized mass in an ash tree. These were just stragglers, the technician said, and posed no danger. Still, Alvarez was taking no chances. "A lot of kids pass by here," she said.

The invasion has already changed beekeeping in the region, virtually driving out hobbyists and prompting commercial apiaries to replace queen bees more often in order to protect hives against infiltration.

But some bee experts say further hybridization may ultimately tame the Africanized bees. They contend that the vast sea of local bees in Southern California farmland provides more competition for food and, through mating, could dilute the genes of the Africanized variety. Bill Routhier, a bee expert with the state Agriculture Department in San Diego, said the European bee was similarly fast-moving and foul-tempered when introduced into North America during Colonial times. Over the years, it mellowed. "There's the hope we'll be able to do that with the Africanized bee," he said.

But the bees will probably reach the California coast long before then. Suburbia will doubtless appear an inviting landscape, lush in plants and flowers for nourishment and buildings for nests, Routhier said.

People needn't be as hospitable. "It's going to be a foolish person who allows the bees to stay in their backyard," he said.