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Julie Cohen

Corpse Flower Blooms and Causes a Big Stink

Chanel, UC Santa Barbara's corpse flower, has finally spread her odiferous wings, broadcasting a stench that smells like a cross between rotting flesh and Limburger cheese. "It's disgusting," said junior Connor Way, who visited Wednesday morning. "It's pretty nasty."

Other visitors said Chanel smelled like "French cheese" or "a dead rat in a wall." Alex Feldwinn, a computer technician in the Life Science Computing Group said, "It really smells like a dead animal –– not just a dead animal, but a rotting one." Edith Ogella, a longtime Santa Barbara resident, said, "It's breathtaking."

The entire community has been holding its collective breath waiting for UC Santa Barbara's Amorphophallus titanum, its proper botanic name, to bloom. "This is a rare occurrence under cultivation and even rarer in its native Sumatra, where the deforestation of equatorial rainforests has wreaked havoc on its habitat," said UCSB biology greenhouse manager Danica Taber.

Hundreds of visitors to the greenhouse can now tick off on their bucket list seeing — and smelling — a Titan Arum. "We've been visiting in Santa Barbara for a month," said David Cooper, who lives in Phoenix. "We came last week but couldn't leave until we saw it in bloom."

Discovered in 1878 by the Florentine botanist Odoardo Beccarini, the Titan Arum, another common name given the plant by Sir David Attenborough in his BBC nature documentary series, heats up as it blooms in order to disperse its "perfume" — hence the moniker Chanel. Heat enables the smell to go farther, attracting more pollinating insects and increasing the chance of pollination.

An infrared camera from Goleta-based FLIR captured time-sequence thermal photography of Chanel as her spadix, the tall core spike that houses both female and male flowers, heated up to nearly human body temperature. The plant's temperature began to rise at 7 p.m. Tuesday night and peaked at 95.5°F at 12:23 a.m. Wednesday morning. "The data provided by this series of photographs will help us understand how the Titan Arum uses thermal energy to attract pollinators," said Taber.

The Titan Arum heats up by burning carbohydrates stored in its corm, an underground stem that has been modified into storage tissue. The enormous amount of energy expended during this process limits the time the Titan can bloom, which explains why it only blooms for a couple of days and doesn't bloom annually.

Chanel is only the second Titan Arum to bloom at UC Santa Barbara. Tiny, Chanel's mother, bloomed once in 2002 before dying. The wait for the next bloom from this giant Sumatran cousin to the common philodendron may not be as long as the wait for Chanel to bloom. Chanel is about to become a mother.

Staff at the biology greenhouse had the foresight to contact the U.S. Botanic Garden in Washington, D.C., to secure pollen from its plant (nicknamed Mortimer in social media) that bloomed July 21. While Chanel was in heat last night, greenhouse staff applied the pollen donated to the female flowers.

Once pollinated, female flowers develop into olive-sized bright orange-red fruits that are carried in cylindrical clusters up to half a meter long. Inside the fruits are one or two seeds that — with tender care and an abundance of patience — can develop into the corms from which the Titan Arums grows. Five to seven years down the road, Chanel's offspring could possibly bloom.

"Any seeds that Chanel and Mortimer produce from their cross-continent union will help further conservation efforts for this bizarre, majestic, and threatened plant," Taber said.

"There are 300,000 different species of flowering plants and the corpse flower is one of the most extreme examples of how evolution can result in extreme flowers and pollination systems," said Scott Hodges, professor in the Department of Ecology, Evolution and Marine Biology. "This is a tremendous opportunity to show students and the general public about plant diversity and biology in general. And there are other teaching opportunities, such as showing conservation students how we can go about keeping endangered species from going extinct by reproducing them in greenhouses such as ours here at UCSB."

The greenhouse will be open this evening from 5 p.m. to 8 p.m. Admission is free. Titan Arum signs will direct visitors to Lot 18, where parking costs $5 for two hours. From there, Titan Arum signs will guide visitors from Lot 18 to the greenhouse.

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UCSB Greenhouse

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