

Return of the Titan

The titan arum (*Amorphophallus titanum*), also known as the corpse flower, bloomed at the U.S. Botanic Garden Conservatory in July 2013. It was the first bloom of this particular plant, though it is nearly 10 years old. It takes quite a while to create enough energy for a bloom as spectacular as this one!

The public display began on Thursday, July 11; the titan began to open the evening of Sunday, July 21; started to close the evening of Monday, July 22; and collapsed the evening of Wednesday, July 24. The ephemeral nature of the bloom, coupled with its unpredictable flowering schedule, attracted more than 130,000 people to see the plant in person, and more than 650,000 views to the live webstream.

The magic of the titan arum comes from its great size - it is reputed to have the largest known unbranched inflorescence in the plant kingdom. When it went on display, the plant was around four feet tall. By the time the titan arum bloomed, it had grown to eight feet! Referred to as the corpse flower or stinky plant, its putrid smell is most potent during peak bloom at night into the early morning. The odor is often compared to the stench of rotting flesh. The inflorescence also generates heat, which allows the stench to travel further. This combination of heat and smell efficiently attracts pollinators, such as dung and carrion beetles, from across long distances.

The titan arum does not have an annual blooming cycle. The titan arum emerges from, and stores energy in, a huge underground stem called a "corm." The plant blooms only when sufficient energy is accumulated, making time between flowering unpredictable, spanning from a few years to more than a decade. It requires very special conditions, including warm day and night temperatures and high humidity, making botanic gardens well suited to support this strange plant outside of its natural range.

This plant is native to the tropical rainforests of Sumatra, Indonesia, and first became known to western science in 1878. In its natural habitat, the titan arum can grow up to 12 feet tall. Public viewing of this unique plant has occurred a limited number of times in the United States. The U.S. Botanic Garden previously displayed blooming titan arums in 2003, 2005 and 2007. The Garden currently has 14 accessions of the titan arum, so we hope to have another plant bloom in the coming years.

After the titan bloomed, Bill McLaughlin, plant curator at the U.S. Botanic Garden, cut through the spathe to collect pollen to send to the University of California, Santa Barbara for its titan arum, nicknamed Chanel, that was about to bloom. The greenhouse staff was able to apply the pollen from the U.S. Botanic Garden's male flowers to Chanel's female flowers while it was in bloom at the end of July. Once pollinated, the female flowers develop into bright orange-red fruits. The seeds inside the fruit can develop into a new corm. If the pollination is successful, there could be a blooming offspring in about a decade!

