

Read the selection to find out why some plants smell bad. Then answer the questions that follow.

Foul Flora

by Marilyn Singer

The Rancid Rafflesia

1 What weighs as much as a miniature poodle and smells as bad as rotten dog food? Would you believe it's a *flower*? The rafflesia is the world's largest flower. When it's in full bloom, it can weigh up to fifteen pounds and be a yard wide. Found on rain forest floors in Indonesia, Borneo, and Sumatra, it is a parasite that lives off the roots of a vine related to the grapevine. Having no roots, stems, leaves, or chlorophyll, the rafflesia gets its food from that plant.

2 The rafflesia takes nine months to reach full size. Then it bursts out like a big, orange cabbage and expands into a blossom as much as three feet wide and up to fifteen pounds in weight. Flowering for just four to six days, it fills the air with a stench like carrion,* which has earned it the name "stinking corpse lily."

3 Why would any flower smell like that? The answer has to do with *pollination*.



rafflesia blossom

Two, Four, Six, Eight— Now's the Time to Pollinate!

4 In order to reproduce, most flowers need to be pollinated. For flowers to make fruit and seeds, pollen from the male parts needs to reach the female parts. Some plants can pollinate themselves. Others must be pollinated by wind, water, or animals.

5 If a flower smells yummy during the day, chances are that it is pollinated by butterflies, bees, wasps, certain beetles, or other insects that are attracted to sweet odors. Pollen clings to them and is deposited on other blossoms. Pale or white flowers that are fragrant at night usually attract moths. Dull-colored, odorless plants are often wind-pollinated. Some bright, odorless blooms may be pollinated by birds, such as hummingbirds, which have a poor sense of smell. The birds

* *carrion* — decaying flesh

go to drink nectar, and the pollen sticks to their feathers or beaks. Colorful but unscented flowers also appeal to bees, wasps, and butterflies, which look for blossoms of particular colors and shapes and not just scent. And if a flower smells—and sometimes even looks—bad, it lures flies, carrion beetles, or other critters that love the putrid odor of rotten meat or fish.

Going Batty!

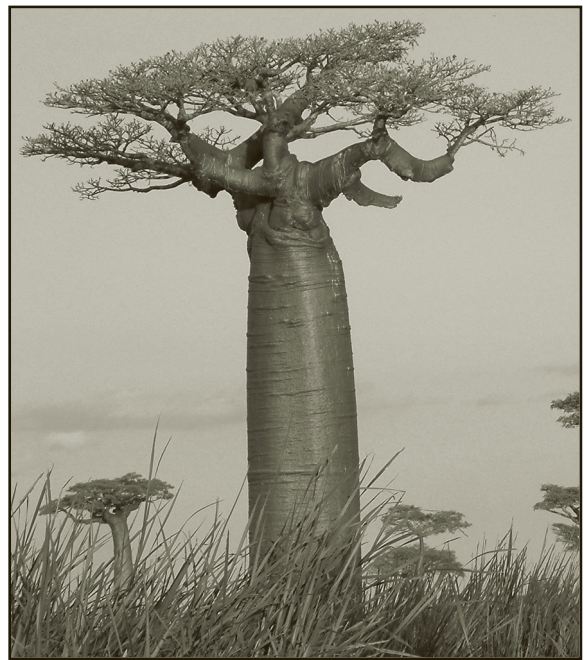
6 Flies and beetles aren't the only creatures attracted to smelly flowers. Many plants are pollinated by bats. What odors do bats prefer? Some like the smell of rotting fruit. And some like the musty aroma of fellow bats.

7 In Africa, the baobab tree (*Adansonia digitata*) produces gorgeous blossoms that reek rather like these flying mammals. Because bats are nocturnal, the flowers open at night and are pale in color so the bats can see (and smell) them more easily. While they are eating the flowers' nectar, the pollen sticks to the bats' fur or mouths. As they fly from bloom to bloom, they transfer it.

8 The baobab is a magnificent and important plant. Animals live in its branches. People use all of it—the bark for cloth and rope, the leaves for medicine, the fruit for food—and sometimes even take shelter inside its huge trunk.

9 Another important relative of the baobab is the silk cotton tree (*Ceiba pentandra*). This tree's fruits produce *kapok*—a fluffy material once widely used in lifejackets, sleeping bags, quilts, mattresses, and pillows because it is buoyant and warm. In many places the wood is still used to make canoes. Like the baobab, the kapok has malodorous flowers that attract bats. In some places, bats appear to be the plant's *only* pollinator and seed disperser. Eliminate the bats, and you eliminate the tree—one of many good reasons to protect these mammals.

10 Baobab and kapok blossoms, like carrion flowers, certainly smell great to their animal pollinators, but there's a good chance Mom won't like them. So when it comes to Mother's Day, it's best to stick with roses.



field of baobab trees



kapok blossom