



Inside Grand Canyon

The Love Song of Summer (Cicadas) Transcript by Ranger Haley Bercot

This is Ranger Haley with the June podcast on The Love Song of Summer.

It's summertime in Grand Canyon. California Condors circle over head, riding the cool wind currents. Mule deer rest in the shade of the forest. Tourists slather on sunscreen and line up for ice cream. Everyone is trying to escape the heat. Everyone except for one love struck Romeo, singing loudly under the full punishing glare of the summer sun. From deep within the Canyon, echoes the love song of the Cicada.

This love song carries both the hope of new life and the risk of mortal failure. It marks the end of a long silent struggle that began 3 years ago, when our Romeo was conceived on a similar hot summer day, deep in the Canyon by the Colorado River.

Our Romeo's mother is heavy with eggs. She flits about the riparian ecosystem, depositing eggs in the Cottonwoods and seep willows. She may lay 600 eggs before her task is done. After a month or two, our little Romeo is ready to hatch. With all his might, he struggles through the shallow confines of his darkened home and steps into the bright light of day. But this little Cicada isn't ready for the sunshine. Neither his eyes nor wings are fully developed. Instead of taking flight, he seemingly suicidally lets go of his high perch and plummets down to the ground below. Then he tunnels deep into the earth.

What follows then are 3 years of silent struggle in the dark. Our Cicada burrows deep underground, excavating subterranean chambers, resting in moist cells, and sucking on the sweet roots of plants. There is no light, no flight, and no song.

Then, comes a warm day in early June, a day in which our Cicada is ready to embrace the sun. Just like he struggled out of his egg, Romeo now struggles up through the ground and onto a slender horsetail stalk. For the first time in his life, this Cicada basks in the sun. He sheds his old skin and emerges fully mature. He's about the size of a paper clip, with a dark bulky body, wide set eyes, and large translucent wings ready for flight.

But he's got to be careful! This bright new world is full of predators! Birds, mammals, reptiles, even other insects prey on cicadas. And our Romeo is a lover, not a fighter. He doesn't have teeth or a stinger to defend himself. A Cicadas defense is its unique lifestyle. While most desert animals are active at dusk and dawn, Cicadas are diurnal which means that most of their activity happens at the hottest times of day, when all the other animals are hunkered down in the shade. So, our Romeo stays still and silent until 11 o'clock in the morning, when the temperature has already topped 100 degrees Fahrenheit, and then he cuts through the heat with his famous song.

But this first attempt at music isn't a great success. The notes are irregular, the rhythm uncertain, the tempo faltering. Romeo must struggle to master the use of his abdominal muscles. But now, a week into his adult life, he can vibrate the membranes on the side of his abdomen at a rate of over 4,000 cycles per second to sing at a sound level pressure of over 100 decibels. Our Romeo is one of the loudest insects in the world. This loud love song echoes from deep within the Canyon.

And how will this story end? Will Romeo's love song attract a Juliet or will it draw the attention of a hungry Scrub Jay? Will this love song mean new life or sudden death? The answer is waiting for you on the trails. As you explore Grand Canyon, keep your eyes and ears open to better witness the dramatic struggles of Cicadas and other wildlife. You'll soon discover that the natural world is filled with stories of life and death and love.

This has been Ranger Haley of Grand Canyon National Park with your June podcast.