

# Survival of the Sneakiest

by the [Understanding Evolution team](http://evolution.berkeley.edu/evolibrary/article/0_0_0/sneakermale_01) at [http://evolution.berkeley.edu/evolibrary/article/0\\_0\\_0/sneakermale\\_01](http://evolution.berkeley.edu/evolibrary/article/0_0_0/sneakermale_01)

"Survival of the fittest" means that the strong succeed, and the weak fail, right? Well, often that's how it's portrayed, but the real story is a bit trickier. Let's take a closer look at what the crickets do...



NOT FAR AWAY, A FEMALE CRICKET LIKES WHAT SHE HEARS...



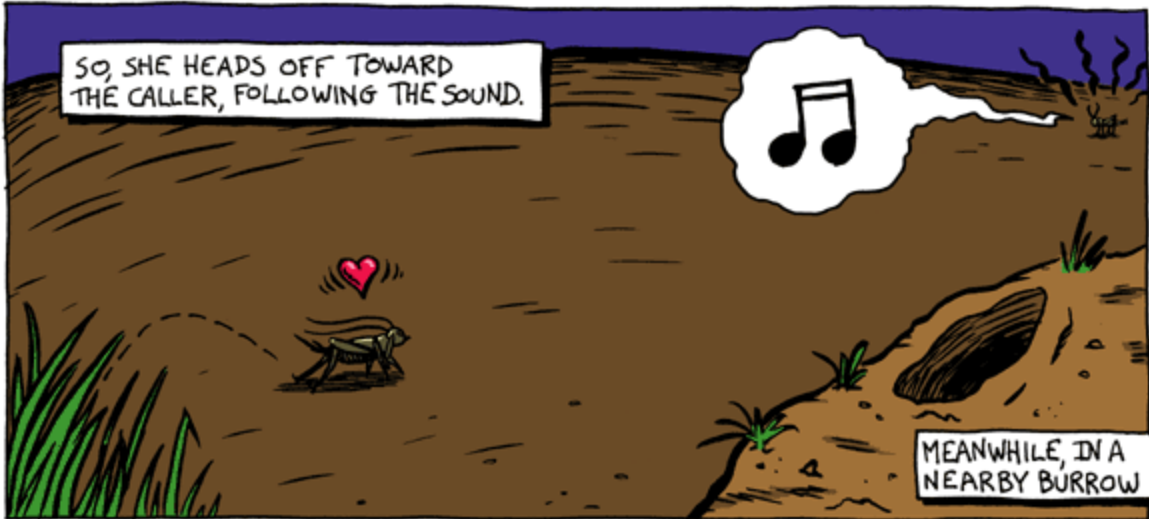
OH YEAH!  
MY EXOSKELETON  
IS SOOO GLOSSY!  
I'M PARASITE FREE!

OH MY!

THAT'S ONE HUNKA  
HUNKA BURNIN' CRICKET!  
JUST THE KIND OF MALE  
I WANT TO FERTILIZE  
MY EGGS!



SO, SHE HEADS OFF TOWARD  
THE CALLER, FOLLOWING THE SOUND.



MEANWHILE, IN A  
NEARBY BURROW

OH GIRL, YOU MAKE MY  
ANTENNAE TREMBLE!  
TOGETHER WE CAN  
MAKE EXTREMELY  
FIT OFFSPRING!

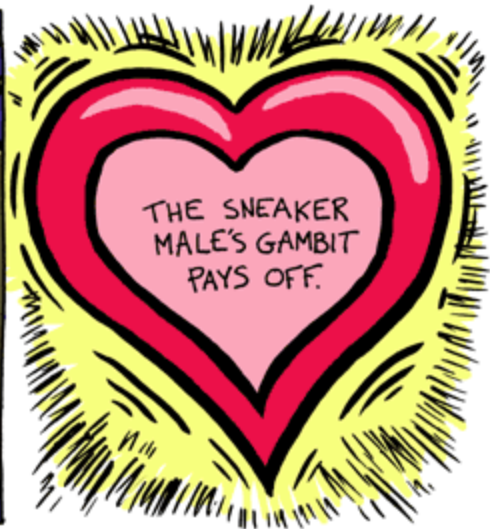
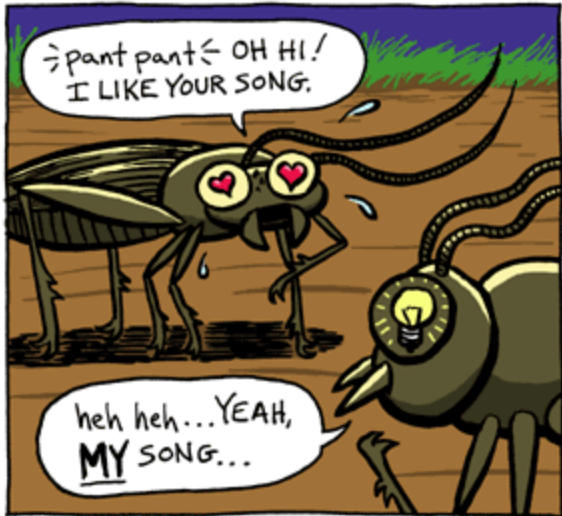
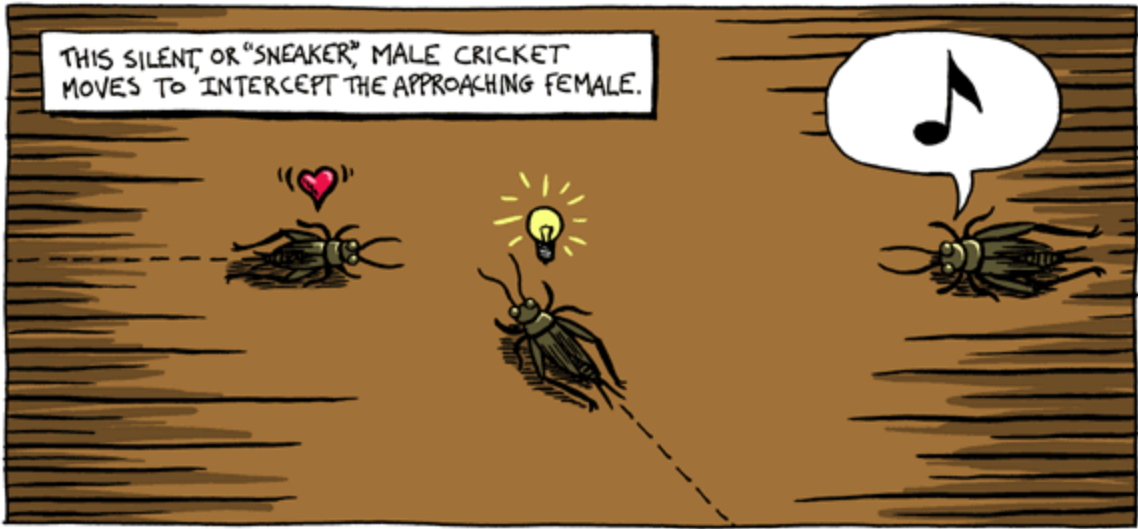
WILL YA LISTEN TO  
THIS BLOWHARD?



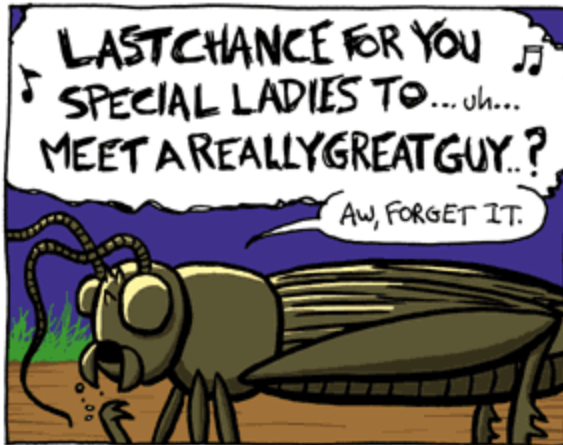
I MEAN, I WANNA MATE  
AS MUCH AS THE NEXT  
GUY CRICKET, BUT YOU DON'T  
HEAR ME ANNOUNCING IT  
TO THE WHOLE MEADOW.

ACTUALLY, THAT  
GIVES ME AN IDEA.





AND OUR ORIGINAL, STRONG, LOUD, CALLING MALE IS OUT OF LUCK.



IN FACT, HIS SONG HAS ATTRACTED SOME UNWANTED ATTENTION.



MAYBE OUR SNEAKER MALE'S KIDS WILL INHERIT THE "SNEAKY" GENES, AND IN TURN USE SNEAKY BEHAVIOR LIKE THEIR FATHER.



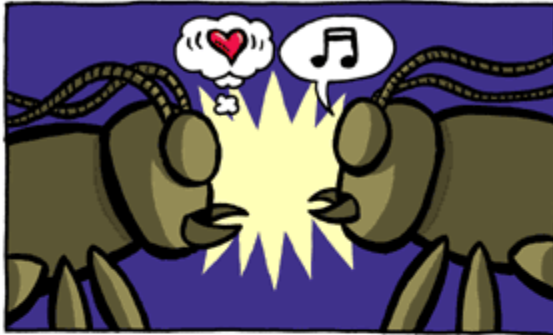
OF COURSE, TOUGHNESS CAN HELP TO INCREASE AN ORGANISM'S CHANCE OF LIVING LONG ENOUGH TO REPRODUCE...



...BUT REPRODUCTION AND THE PASSING ON OF GENES ARE MOST IMPORTANT IN TERMS OF EVOLUTION. AND THERE ARE MANY WAYS THAT AN INDIVIDUAL CAN GET THEIR GENES INTO THE NEXT GENERATION.

CALLING IS STILL A GOOD STRATEGY FOR MALE CRICKETS TO INCREASE THEIR CHANCE OF MATING. FEMALES ARE ATTRACTED TO CALLING MALES, AND THERE WON'T ALWAYS BE SNEAKERS OR PREDATORS AROUND TO DERAILED THE CALLERS.

AND IF THEY ALL USED THE SILENT, SNEAKER STRATEGY, THEN **NO** FEMALES WOULD BE ATTRACTED AT ALL, AND THE MALES WOULD HAVE SOME LONG, LONELY NIGHTS.



SO, WE END UP WITH A VARIETY OF SUCCESSFUL MATING STRATEGIES. THAT'S HOW NATURAL SELECTION WORKS. THERE IS NO ONE, TRUE, ULTIMATE SURVIVAL STRATEGY. A SUCCESSFUL STRATEGY IS WHATEVER GETS THE JOB DONE.



## EXTRA CRICKET!

CRICKETS DON'T ACTUALLY SING WITH VOICES, LIKE BIRDS OR PEOPLE. THE MALE CRICKET'S SONG IS MADE BY SCRAPING ONE WING ACROSS ANOTHER, SORT OF LIKE A VIOLIN BOW SCRAPING ACROSS A STRING.



CRICKETS CHIRP MORE OFTEN IF IT'S HOTTER. IN FACT, IT'S POSSIBLE TO ESTIMATE THE TEMPERATURE BASED ON THE FREQUENCY OF CRICKET CHIRPS.



How 'bout this heat?

### **Discussion questions**

1. When it comes to crickets, what does fitness mean?
2. Is calling good or bad for a cricket's fitness?
3. Give some examples of selection at work in this cricket story.
4. How does selection favor calling? How does selection favor not calling?

**Home**