

Study: Female crickets steered by sound

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Cambridge University scientists in England say female crickets react to, and make steering corrections toward, the sound pattern in a male cricket's song.

James Poulet and Berthold Hedwig recorded the walking speed and direction of female crickets placed atop a trackball while a mixture of non-attractive sound pulses and male cricket songs were played. When the females heard the distinctive sound of the male's song, they immediately changed direction and sped up toward the sound.

Non-attractive sounds caused only very weak responses, but when such sounds were inserted into the male's songs, the females changed direction and also steered toward them.

The scientists observed that while listening to the male's song, the females walked to any pattern, but without the male song, they slowed their walking.

The researchers conclude movement in response to external signals by crickets may represent a general strategy in the evolution of insect behavior. As a consequence, in crickets the endpoint of the walking path may not be calculated in advance, but may continually be adjusted as the song input changes.

The study is detailed in the online early edition of the Proceedings of the National Academy of Sciences.

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