

‘Jumping genes’ may explain why coffee bean boring beetles are so destructive

Tiny beetles that bore into coffee beans to lay their eggs and do \$500 million of damage annually to coffee crops around the world are the target of plant biologists at Cornell University collaborating with Cenicafe, Columbia’s national coffee institute, to find ways to get rid of the pest.

The pin-head sized beetle, known as the coffee berry borer, or *Hypothenemus hampei*, has hit hard in Colombia, the world’s second largest supplier of Arabica beans after Brazil. To confront the destruction by the coffee bean boring beetle, Cornell University researcher Jocelyn K.C. Rose is applying findings from studies in his plant biology laboratory to the stubborn coffee insect problem, according to research by the National Science Foundation reported on [Live Science](#).

Rose and his researchers identified a gene within the coffee beetle genome that encodes an enzyme called mannanase, which can digest the storage carbohydrates of coffee beans. That gene apparently originated from bacteria. The Cornell scientists also identified genetic elements called transposons, or ‘jumping genes,’ on either side of the transferred mannanase gene. Jumping genes move from one location in the genome to another and may have assisted in the transfer process, the researchers theorize. The unusual finding about the jumping genes may provide new insight toward solving the problem with the invasive beetle.

Read the full, original article: Coffee Bean Boring Beetle May Be So Destructive Because Of ‘Jumping Genes’ That Crossed Species Barrier