

Morphology research paper

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The large desert of North America is home to various fascinating wild plants, but there is none that is as intriguing as the Mexican jumping beans. The jumping bean is not really a bean, a native shrub that grows in the deserts of Mexico produce it. The Mexican shrub that produces it is known as *Sebastiania pavoniana*. It is a minute section of a seed capsule which contains the jumping bean moth larva (*Laspeyresia saltitans*). The seeds of the bean pods are colonized by moth larvae. The seeds jump when the larvae move around, causing the seed to tumble, roll and ultimately jump about in response to scorching heat. The beans are singular sections of the seeds of the *Sebastiania pavoniana* shrubs.

HABITAT AND GEOGRAPHIC RANGE

Sebastiania pavoniana are found in the states of Chihuahua and Sonora in the Rio Mayo region. They grow along the arroyos and the rocky desert slopes. In fact, the Alamos in Mexico is dubbed the 'jumping bean capital of the world'. Also, the *Sebastiania* shrubs have been sighted recently in the Sierra de la Laguna canyons, located in the Baja California cape region.

REPRODUCTION METHODS AND LIFE CYCLE

The *Sebastiania* shrub is a deciduous shrub found only in Mexico. The reproductive life begins every spring when the shrub begins to bloom. Female jumping bean moths from the previous year's beans emerge and deposit their eggs on the capsules of the *Sebastiania* shrub flowers. The eggs hatch after a few weeks and the small insect larvae burrows its way into the flowers capsule. As the shrub continues to grow and mature, the capsules containing the larva harden up and change their color to brown. By this time,

the moth larvae are trapped inside the capsule. It feeds on the germinating seed inside the capsule. With the arrival of the spring rains, the capsules are separated into three sections and subsequently fall down. Three beans are contained in a pod. The capsules that contain a moth in them start jumping and rolling about. This is purely a survival strategy. Heat from sunlight could cause desiccations, they jump with the movement of the larva in a bid to locate a cool damp place to stay. This continues for several months, the moth larvae begins spinning a cocoon in the capsule. Afterwards, it undergoes metamorphosis which results in the emergence of an adult moth. The moth flies off into the desert and the same happens over and over again for the Mexican Jumping beans.

ECONOMIC IMPORTANCE AND RELEVANCE TO HUMANS.

A lot of people have heard about the intriguing jumping bean. A small bean seed that jumps around when held in the palm or when exposed to any form of heat surely will arouse some degree of curiosity. The manner with which the seeds jump around is hugely fascinating and obviously interesting to watch. Consequently, these supposed beans are harvested in large numbers in the deserts of Mexico and exported to America where there is a waiting market for it. Millions of the beans are picked and exported yearly. This has in no small means provided a source of livelihood for those who pick the seeds. They are picked majorly by the young and old in the region who subsequently sell to those who will process and export them. Also, freshly cut stems of the Sebastiana shrub produce a milky sap which is poisonous. It is used by the Native Indian's, applying it to their arrow tips when hunting.

In conclusion, the Mexican Jumping Bean is a peculiar and interesting plant seed, it is a dicotyledon and is found in the deserts of Mexico. The moth inside causes the jumping episode in response to heat.

Works Cited

(2012)<http://green-buzz.net/environment/the-most-intriguing-bean-in-the-world/>

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