



ARTICLE

Mission Blue Translocation Project Pilots New Release Approach

Golden Gate National Recreation Area (<https://www.nps.gov/goga/>)



To feed the butterflies, staff put sugar water on a cotton ball and carefully placed it against the mesh lid of the butterflies' transport container. When the butterflies walked on the mesh, they could taste the sugar water through their feet (!), and would begin sucking it through their proboscis.

Golden Gate National Parks Conservancy

May 2019 - A shared commitment to the recovery of endangered Mission blue butterfly populations often brings land managers together from across the Bay Area to coordinate and exchange ideas. At one such meeting, Golden Gate National Parks Conservancy staff were presenting their work on the [Mission Blue Butterfly Translocation project](https://www.parksconservancy.org/video/mission-blue-butterfly-translocation-project) (<https://www.parksconservancy.org/video/mission-blue-butterfly-translocation-project>) at Milagra Ridge when another biologist, Jessica Appel, shared an observation. She recalled that during her PhD research on Acmon blue butterflies, the females laid more eggs after being fed sugar water in a lab setting.

Christina Crooker, a coordinator of the translocation project, took note. It was unusual for translocated Mission blues to lay eggs upon their release. Yet project data showed that it was possible. Some had laid eggs while they were released under netting during the first year of translocations. Could feeding the butterflies help support that behavior?

A challenge with feeding butterflies sugar water outside of a lab is that if the water gets on the butterfly, it could attract ants. So Christina reached out to Jessica to brainstorm safe ways of feeding butterflies in the

field. Ideas in hand, they followed up with the US Fish and Wildlife Service to review options. This month, the agency approved a pilot effort to test feeding half of translocated females.

In their first pilot experiment of this approach, staff released three female butterflies fed sugar water, and three not fed sugar water, with promising results. The sugar water-fed butterflies laid a total of 14 eggs, while the butterflies not fed sugar water laid a total of one egg. Staff even recorded one sugar water-fed female in what may be the first-ever video of a Mission blue butterfly laying an egg!

The requested video is no longer available.

Translocations are now done for [this season \(https://www.nps.gov/articles/mission-blue-translocation-project-enters-year-three.htm\)](https://www.nps.gov/articles/mission-blue-translocation-project-enters-year-three.htm), but more are planned for next year. Given the preliminary success of this pre-release feeding, further trials are likely to continue next year as well. Repeating the trials several times will help ensure that this approach is as reliable, safe, and effective as possible. If all goes well, butterfly conservationists may have a powerful new tool in their toolkits!

Contact [Christina Crooker \(https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=68A6C9B492D8AAEB4AB12BDF204A8A2488E439D4AB7829C4651A19519&r=/articles/mission-blue-translocation-project-pilots-new-release-approach.htm\)](https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=68A6C9B492D8AAEB4AB12BDF204A8A2488E439D4AB7829C4651A19519&r=/articles/mission-blue-translocation-project-pilots-new-release-approach.htm) to learn more.

[See more from the Bay Area Nature & Science Blog \(https://www.nps.gov/rlc/pacificcoast/blog.htm\)](https://www.nps.gov/rlc/pacificcoast/blog.htm)



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Last updated: May 28, 2019

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