

# NEVADA NATIVE PLANT SOCIETY

▲ Western tiger swallowtail (*Papilio rutulus*) butterflies near Jarbidge, NV  
by R. Tietje

## SOCIETY NEWS

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### NORTHERN NEVADA EVENTS

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**October 4 – Ann Pinzl**, Archives Chair for NNPS and longtime member, will give a program on her **travels to Madagascar**.

**November 1 – Jessica Kindred**, with the State BLM Office, will discuss the **Seeds of Success** program during our final meeting of the year.

**Meetings are held in room 300G** of the Fleischmann Agriculture Building on the UNR campus, north of 9<sup>th</sup> Street and Evans Avenue. Enter the building under the breezeway on the west side near the street. There's an elevator at the east end of the building. Meet on the third floor and down the hall from the **UNR herbarium**.

**Social time at 7:00 PM**; program at 7:30. The outside doors are locked at 7:30.

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### SOUTHERN NEVADA EVENTS

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**November 5 – Tiffany Pereira**, graduate student at UNLV's School of Life Sciences, presents **Evaluating long-term change in soil seed banks, fertile islands, and rare**

**plant communities in the Eastern Mojave Desert.**

Our program coordinator is Lesley DeFalco. Contact her at [defalco@usgs.gov](mailto:defalco@usgs.gov) to receive email updates for Southern Nevada events.

**Newsletter submissions** – Please submit photos, essays, tales of your botany field trips, plant-related book reviews, or any other material that would be of interest to members to [newsletters@nvnps.org](mailto:newsletters@nvnps.org).

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### 2019 PHOTO CONTEST

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**Y**ou can still vote on your favorite photos for our **annual photo contest**. The winning photos will be featured in the 2019 NNPS calendar.

We are also taking pre-orders for the calendars now through October 6. This allows us to order the right number of calendars. Pre-ordered calendars will be available at cost plus postage (or pick up for free in Reno, Carson City, or Henderson) but we will not know the cost for each until we have the order ready. We have a new local printer this year so we expect the price to be slightly lower for pre-orders than the last two calendars (\$6-7). The calendar will also be available for purchase from our online store.

**Events subject to change.**  
Visit [nvnps.org](http://nvnps.org) for updates.

This yucca moth is inside the flower of a yucca, *Yucca glauca*  
by Ann Cooper, BugGuide.net



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## YUCCA MOTHS

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Story by Beatriz Moisset

One of the most extraordinary partnerships between an insect and the plant that it pollinates is that of the yucca and the yucca moth. They are so interdependent that one cannot live without the other. Actually, there are a number of species of yucca, each with its corresponding partner, a species of *Tegeticula* or *Parategeticula* moth. This mutually beneficial relationship probably started as a relationship of exploitation with the moth feeding on the yucca. This is still the case with a number of close relatives of *Tegeticula*, members of the *Prodoxidae* family.

The yucca moth is a non-descript, small, whitish moth that blends well with the color of the yucca blossoms where it spends most of its brief adult life. A very distinctive feature of

*Tegeticula* is the absence of the long tongue, characteristic of most moths and butterflies. Instead, it has tentacles around its mouth that serve a very important function and make possible its job as a pollinator.

The adult yucca moth does not need to feed because it is so short lived. However, the female gathers pollen, which it holds under its chin with the help of the tentacles. Males and females emerge from their cocoons in the spring in synchrony with the blossoming of the species of yucca with which they are partners. They meet and mate on the yucca blossoms and then the job of the females starts.

She visits the anthers of the flower and scrapes the pollen from several of them shaping it into a large lump. Then she leaves





▲ *Tegeticula* sp., by M.J. Hatfield, BugGuide.net

in search of another inflorescence, not just another flower in the same bunch but in a different plant altogether, assuring in this manner the cross pollination of the yucca.

When she arrives at a new plant, she inspects the flowers and chooses the ones that are at the right stage. She also checks if there are already eggs laid in the flower's ovary. She can detect the smell of other female moths with her antennae and, if another one has been there already, she searches for another flower. This is good for the plant and for the future babies because, if too many eggs were laid in one flower ovary, the flower would abort and the larvae would starve. She lays her eggs in the ovary, no more than a handful; once again, if she laid too many eggs, the flower would abort.

Afterwards she goes to the stigma of the flower and carefully removes some pollen from under her chin and deposits it on the stigma. Now the flower will produce a fruit and enough seeds to feed the larvae as well as ensure the reproduction of the plant.

In a few weeks, the larva is fully-grown. It drops to the ground; it buries itself and makes a cocoon. It will stay underground until the next spring. However, some pupae remain dormant for more than a year. If the yucca fails to bloom one year because of weather conditions, there will still be yucca moths around.

Yuccas are used as ornamentals well beyond their original geographic range. The yucca moths have managed to follow the yucca and have enlarged their range east and north as far as the east coast and Alberta and Ontario in Canada.

For additional information:

Pellmyr, Olle. 1997. *Prodoxidae. The yucca moth family*. Version 13 January 1997 (under construction) in [The Tree of Life Web Project](#).

Proctor, M., Yeo, P. & Lack, A. (1996). *The Natural History of Pollination*. Timber Press, Portland, OR.  
ISBN: 0-88192-352-4.



▲ Yucca moths on a yucca flower  
by Alan Cressler

This article originally appeared on the US Forest Service's [Pollinator of the Month](#) page and is reprinted here with permission.

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