FIELD OBSERVATION REPORT

By Mary Wilson

December 14, 2019

Notes From The Field

Thanksgiving brought snow to the valley and it was beautiful. We have had 3.60-inches of rain and snow since October which is enough to germinate poppies and other wildflowers. Will have to see what the next wildflower season brings.

Desert Holly (Atriplex hymenelytra)

This plant is a whitish-gray shrub that is native to the desert of the southwestern United States. It is the most drought tolerant saltbush in North America. It blooms from January to April and it is a compact, rounded bush that grows from 8 to 48 inches tall, and is covered in silver-gray many pointed leaves. The silvery-gray leaves have a coating of tiny gray to white scales that are the silvery color from salts that collect on the surface of the hairs. This helps reflect the light and reduce the amount of water lost. It tolerates alkaline soil, salt, and sand. The leaves accumulate salts which helps extract water from the soil. It removes the salt by having bladders in the leaves that keep the salt from the plant cells and then the salt is shed by dropping the leaves. It drops the leaves in extreme drought conditions.

The common name refers to the leaves that are shaped similar to holly, but the plants are not related. Plants were used as Christmas decorations by drying and dying them.

DESERT MISTLETOE

Phoradendron californicum

Desert Mistletoe is a leafless plant that attaches to host plants. It takes water and minerals from its host plant but it does its own photosynthesis, making it a hemiparasite. It grows on a wide range of host trees, some of which will have side effects including reduced growth, stunting, and loss of infested outer branches. A heavy infestation may kill the host plant. They are adapted to semi-arid conditions and their leaves are vestigial scales, hardly visible, therefore photosynthesis and transpiration only take place in their stems, limiting their demands on the host's supply of water.

A mistletoe seed germinates on the branch of a host tree or shrub, and in its early stages of development it is independent of its host. Once it has made contact with the bark there is a rudimentary root tissue that penetrates the bark, a process that may take a year or more. During this time the plant is dependent on its own photosynthesis. After it reaches the host's conductive tissues it will begin to rely on the host for its needs. Later it will penetrate the host tissue and take water and nutrients from the host plant. Most of the mistletoe seeds are spread by birds that eat the seeds and the seeds are regurgitated, excreted in their droppings, or stuck to the bill, from which the bird wipes it onto a suitable branch. The seeds are coated with a sticky material called viscin and when it touches the stem, it sticks. The viscin soon hardens and attaches the seed firmly to its future host. The mistletoe plant produces fruit/berries that are white then turn to red.

Some native tribes would eat the fruits of mistletoe either raw or they would boil them into a paste. The mistletoe plant contains phoratoxins which can easily lead to death via slowed heart rate, increased blood pressure, convulsions or cardiac arrest.

LEGEND OF THE MISTLETOE

The mystical power of mistletoe, and the tradition of kissing under the plant, owes its origin to the legend of Goddess Frigga and her son Balder. Mistletoe was the sacred plant of Frigga. Frigga was the Goddess of Love and her son was the God of the Summer Sun. Balder had a dream of death which alarmed his mother, for if he died, all life on earth would end. In an attempt to keep this from happening Frigga went at once to air, fire, water, earth, and every animal and plant seeking a promise that no harm would come to her son. Balder now could not be hurt by anything on earth or under the earth. But Balder had one enemy, Loki, God of Evil and he knew of one plant that Frigga had overlooked in her quest to keep her son safe. It grew neither on earth nor under the earth, but on apple and oak trees. It was the lowly mistletoe. So Loki made an arrow tip of the mistletoe, gave it to the blind God of Winter, Holder, who shot it, striking Balder dead. The sky paled and all things in earth and heaven wept for the Sun God. For three days each element tried to bring Balder back to life but he was revived only by Frigga and with the help of mistletoe. Hear tears on the plant became pearly white berries and she blessed it such that anyone who stands under the mistletoe would never be harmed and would be entitled to a kiss as a token of love.

PRIME DESERT WOODLAND PRESERVE

43201 35th St. West (Avenue K-8 & 35th St. West)

This preserve is in an urban area in Lancaster and provides over three miles of trails on about 120 acres surrounded by a school, Duntley Park, and homes. On the trails there are juniper trees, Joshua trees, and many other plants that show what our valley looked like in the past. I like to walk the trails in the early morning and almost always see cottontail rabbits, hares, ground squirrels and many different birds. It is a nice place to walk, relax, and enjoy nature.

There is the Elyze Clifford Interpretive Center that is open Saturday, Sunday, and Wednesdays from 10 a.m. —4 p.m. that is worth a visit. This unique building is one of the first public buildings in the State of California to use straw bale construction. The building was then covered with stucco or plaster and is environmentally safe and very energy efficient.

In the month of December they decorate the pavilion with "Prime Lights" to be viewed between 5—9 p.m. daily (weather permitting) and is free to the public.

HAPPY HOLIDAYS!