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# A Pretty Parasite?

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AN IMPORTANT, BUT YET, LARGELY NONDESCRIPT SHRUB

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photos: Dave Mills

White Ratany (*Krameria grayi*) in flower; most of the year it is an easy to overlook small shrub

When one thinks of a parasite, tapeworms, ticks, and mistletoe come to mind, but here in our wonderfully diverse Upper Sonoran Desert, there is a parasite that is actually pretty. You have to look closely, but white ratany (*Krameria grayi*) is a really pretty parasite. Most of the year it is a nondescript small shrub composed of gray stems with leaves that are so small they are hard to see. But in the spring (a spring when we get some rain), it is covered with lovely magenta flowers that look like miniature orchids.

White ratany flowers are unusual because, instead of nectar, they produce oil as a reward for pollination. After the plant blooms, each resulting seed is enclosed in a fuzzy ball armed with barbs that must have been the model for velcro hooks. These little barbs earn white ratany a very high rating on the “difficulty to remove from socks” scorecard. Unfortunately, the barbs do not protect the developing seed from a tiny moth larva that eats the seed, so very few fruits contain viable seeds.



The seeds may not be viable but they are eaten by quail, and jackrabbits rely on white ratany for food during the winter. Its high protein content makes white ratany an important forage plant for mule deer and desert bighorn sheep; it is also relished by cattle, sheep, and burros. But when overgrazed by cattle, white ratany reacts by producing phenolic acids which reduce its palatability.

Native Americans consider white ratany to be an important medicinal plant. An infusion of the roots was used to treat skin irritations, diabetes, hepatitis, upset stomach, and diarrhea. Modern pharmacologists confirm that white ratany roots contain anthocyanins and other anti-microbial compounds. The reddish colored roots were also used to make a dye, and the fibers were used in basketry.

Actually white ratany is only a partial parasite. It has chlorophyll and photosynthesizes on its own, but its roots invade the roots of neighboring shrubs and trees, which increases its drought tolerance by allowing it to utilize soil moisture from a larger volume of soil.

As one of a number of small, inconspicuous (except when flowering) shrubs that are native to the Upper Sonoran Desert, white ratany is an important component of the ecosystem and should not be grubbed out in an attempt to “Disney” the desert. This pretty parasite is important for wildlife and – who knows – may play a role as a new cure for \_\_\_\_\_.

