

Memo to Files: October 2, 2014 Golden Gate Mine *Pectis imberbis* trip report

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On Tuesday October 2, 2014, Scott and I met Debbie at the Golden Gate Mine site in the Santa Rita Mountains at 9:45 a.m. to survey for *Pectis imberbis* while the plant was still in flower and more visible. We chose this location because our records indicate that on September 23, 1981, a Forest Service employee made an observation of *P. imberbis* here. The areas we surveyed are marked in orange in Figure 1; the yellow polygon shape file was provided by the Heritage Data Management System.

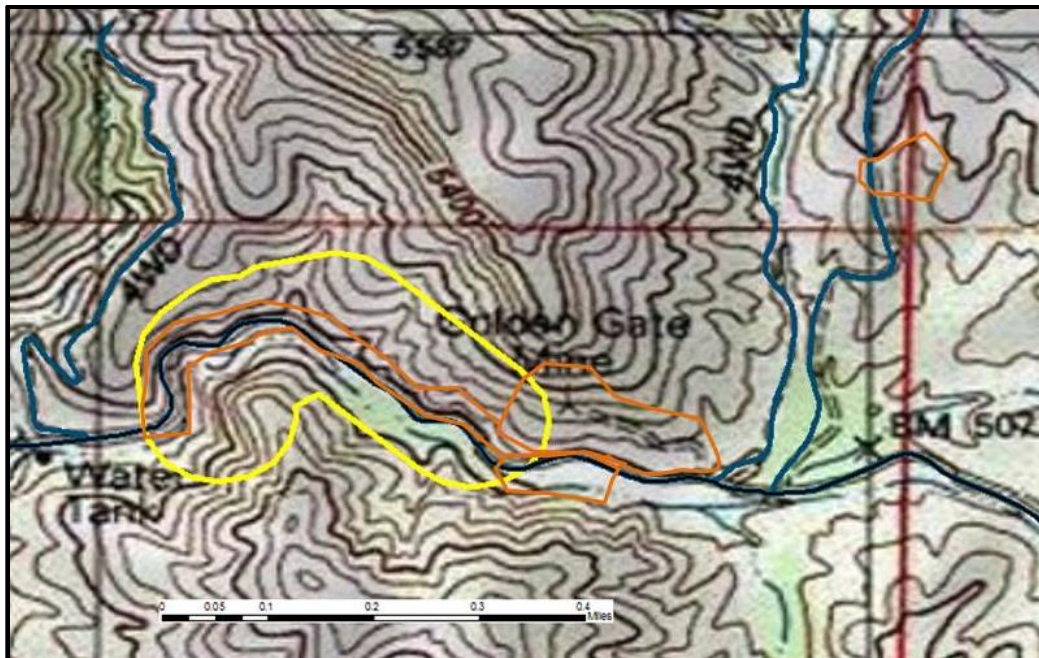


Figure 1. Survey areas in orange; HDMS *Pectis imberbis* polygon in yellow.

For **one hour and forty minutes**, we surveyed the area east and south of the mine (including the dry streambed margins on the south side of the road), as well as the upland area a little to the west of the mine, each walking randomly on a different route (lower, middle, and upper sections) than the other two. The habitat seemed suitable for *P. imberbis*; dominant associates included: *Aristida*, *Bidens*, *Bothriocloa*, *Bouteloua*, *Fuquieria*, *Heliomeris*, *Juniperus*, *Mentzelia*, *Mimosa*, *Muhlenbergia*, *Psyllostrophe*, *Purshia*, *Yucca*, and the exotic *Eragrostis lehmanniana*. **We did not find any *Pectis imberbis*** in any of these locations (Figure 1). Soils were lithic torriorthents - lithic haplustolls (the same soils as the Flux Canyon / Lampshire Canyon area and similar to those on Ruby Road).



Figure 2. Area south of the Golden Gate Mine; south-facing slope. Site was dominated by natives, though *Eragrostis lehmanniana* was present.

We then walked down the roadway until the end of the mapped polygon provided by HDMS. We searched both north and south of the Box Canyon Road during this **1 hour twenty minute** survey; **no *Pectis* were located**. The vast majority of the upland area on the north side of the Box Canyon Road was dominated by *Eragrostis lehmanniana* (Figure 3).



Figure 3. Typical habitat on the north side of Box Canyon Road west of the Golden Gate Mine. Diversity here was very low owing to the dominance of *Eragrostis lehmanniana*. No *Pectis imberbis* was located in this area during our October 2014 surveys.

We then drove to a dirt road to the east of the mine, driving north 0.36 miles where we parked and surveyed for roughly **30 minutes**, walking primarily to the east down a slope, up another, circling down to a dry wash and up again. This site was selected at random as it was grassland habitat and within 0.4 miles (as the crow flies) of a previously occupied site. This location, in fact, contained a large portion of *E. lehmanniana*, especially in the upper slopes to the northeast (Figure 4). **No *P. imberbis* were located**.



Figure 4. Randomly selected survey location ne of Golden Gate Mine. No *Pectis imberbis* were located here; *Eragrostis lehmanniana* was prevalent.

In conclusion, *P. imberbis* is difficult to see, though we surveyed during the flowering season which aids discovery considerably. In general, the areas we surveyed were dominated by the exotic *E. lehmanniana*, which may be out-competing *P. imberbis* along with many other native grasses and forbs.