

"NEWS FLASH"

NEW STYLE RAIN GAUGES FINALLY INSTALLED

By

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With

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Three additional new style rain gauges were finally installed during the 29 Jan '18 visit to the Reserve. In addition to the rain gauge temporarily installed near the Reserve's maintenance yard weather station for rainfall comparison (if it ever rains), four of the new style rain gauges are now in place and ready to record any rainfall on both the western trails and the east ridge. One final rain gauge located at the head end of a valley on the west side of the Reserve remains to be installed but, because it is located between two other gauges, we felt it was less important to get installed as soon as possible. We are also considering installing rain gauges at two new locations; one near the eastern end of the Lightning Bolt trail and one in the southwest corner of the Reserve. These two gauges will provide wider coverage and better data on the variation of rainfall throughout the Reserve. Now, all we need is some rainstorms.

Not only us but the plants desperately need more rainstorms. It has now been more than three weeks since the seed germinating rainstorm on 8-9 Jan and the young seedlings are soon going to start becoming stressed if they don't get more rain.

In the mean time, the seedlings continue to develop. The filaree and fiddlenecks continue to grow true leaves and their dicotyledons are now starting to die; see Figure 1. The dicots of the pygmy-leaved lupine were also observed starting to fade, Figure 2, indicating that they too are continuing to develop their true leaves.

With the emphasis on installing the remaining rain gauges, not much time was spent during this visit re-inventorying the monitoring plots already inventoried. Because it was so surprising that no poppy dicots were previously found in the east ridge monitoring plot, a few moments were taken to check this plot again. Within ten minutes or so, three poppy dicots were located; two already with their true leaves, Figure 3. We challenge everyone to locate the poppy seedling in the figure's photograph. If need be, you can refer back to Figure 1 in the 18 January "News Flash" to see what the distinctive poppy dicotyledons looks like. If you let me know where you think the poppy seedling is located and are correct, I'll announce you as an expert poppy cotyledon locator at the 10 February volunteer training session and will try to recruit you to help with the volunteer research effort. You have it a little easier because the figure is a macro photograph and the plants appear larger than true size. The photograph certainly shows the difficulty of locating poppy dicots among the mass of filaree seedlings and young, but taller, grasses. It typically takes well over an hour to truly inventory a complete one square meter monitoring plot, approximately a 40 inch by 40 inch square, and even then we are never sure that all the poppies have been located.

After a professor, who is a true poppy expert, claimed that poppy plants don't grow on north facing slopes, one of the Reserve's monitoring plots was located on a north slope to investigate this claim. He is only partially correct. Typically fewer poppy plants are observed in this plot but poppies still grow there. Maybe to compensate for the fewer poppies, a greater variety of plant species are typically found growing in this plot and the surrounding area. Figure 4 shows a large number of goldfields growing in the plot this year. A number of an unidentified dicot, Figure 5, were observed in the plot. What we believe is desert parsley, Figure 6 (I apologize that the leaves are out of focus; sometimes my camera doesn't seem to know what I want to focus on), was also observed growing in this plot. The stem size and advanced stage of leaf development for this plant are very surprising. It's unlike all the other seedlings in the area. Finally, what appears to be two different monocotyledon species were also observed growing in, or near, this plot, Figures 7 & 8. One monocot is likely

blue dicks or, possibly, wild onion. Only because this perennial monocotyledon was found growing in this area last year, the second monocotyledon could possibly be golden stars, *Bloomeria crocea*. This species has also been observed growing in other areas of the Reserve in past years. Finding Golden stars growing on the Reserve is interesting because all of the California Plant Databases claim it is not expected to grow in the Reserve's environment and none of the recorded sightings of this species are near the Reserve.

It was nice to see new growth sprouting among the perennial bunch grasses' last year remnants stems. The Reserve's bunch grasses seem to be off to a good start.

During this visit, several in-focus, close-up photographs were successfully obtained of the new looking galls observed on the dormant rabbit brush during the last visit to the Reserve; Figure 9 shows one. The galls in both photographs appeared similar but this one seemed to have some type of red coating on it. Does anyone know what the red coating could be?

With the focus on installing the rain gauges, there are not many animal observations from this visit. One lizard did stop long enough for its photograph to be taken, Figure 10. I'm not a lizard expert but believe it is a side-blotched lizard; a very common arid area lizard species and seemingly the predominant lizard on the Reserve. Can anyone tell if it is male or female?

A large number of burrows, some plugged and others open, of various sizes are typically observed during the visits to the Reserve. Documenting the frequency of the different burrow sizes, and if they are open or closed, could be an interesting future study. Noticeably, one very small, open burrow was observed during this visit, Figure 11. A scale should have been placed next to it to show its size but it was only approximately $\frac{1}{4}$ inches in diameter. The ring of darker soil surrounding the actual burrow indicates that it was likely very recently excavated; the darker, moist soil had not yet had time to dry out. Based on the size of the dark midden and the burrow size, the burrow could be quite deep. It is pure speculation but it could have been a burrow of a native bee or, possibly, a beetle. A few of the smaller, rounded abdomen black beetles were observed scurrying about but none stopped long enough to have its picture taken.

Marsha reported that she again saw a raptor flying close to the ground but it was again too far away to see the distinctive white band at the base of its tail that would have definitively identified it as a northern harrier.

I'm going to attempt to continue to prepare and post "News Flashes" for individual visits to the Reserve to report the major findings but won't promise to cover each and every Reserve visit. It would be valuable to receive feedback if these postings are enjoyed. My email address is: mfpowell@verizon.net

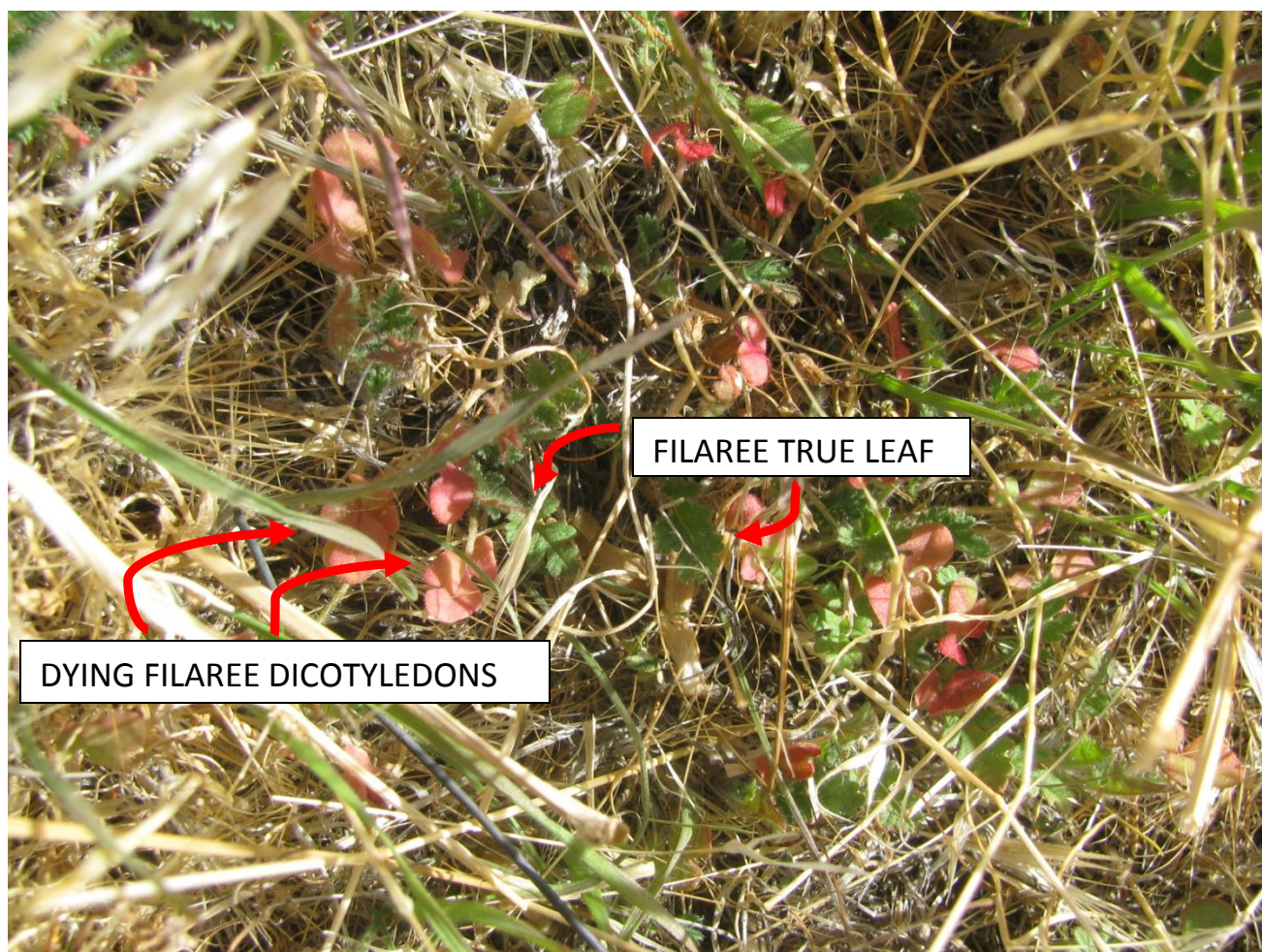
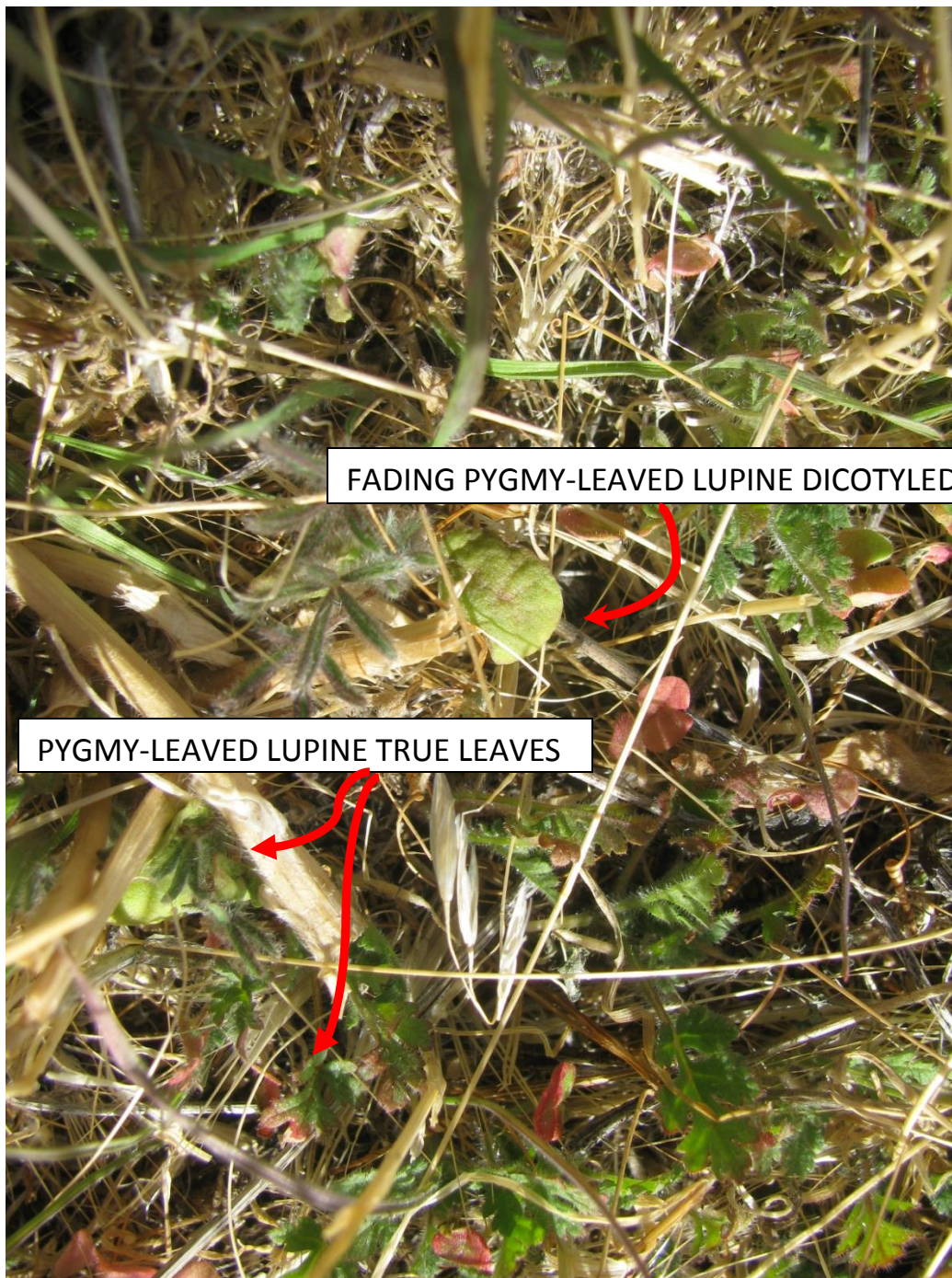


FIGURE 1: DYING FILAREE DICOTYLEDONS



FADING PYGMY-LEAVED LUPINE DICOTYLEDON

PYGMY-LEAVED LUPINE TRUE LEAVES

FIGURE 2: PYGMY-LEAVED LUPINE WITH FADING DICOTYLEDONS



FIGURE 3: POPPY DICOTYLEDONS WITH TRUE LEAVES

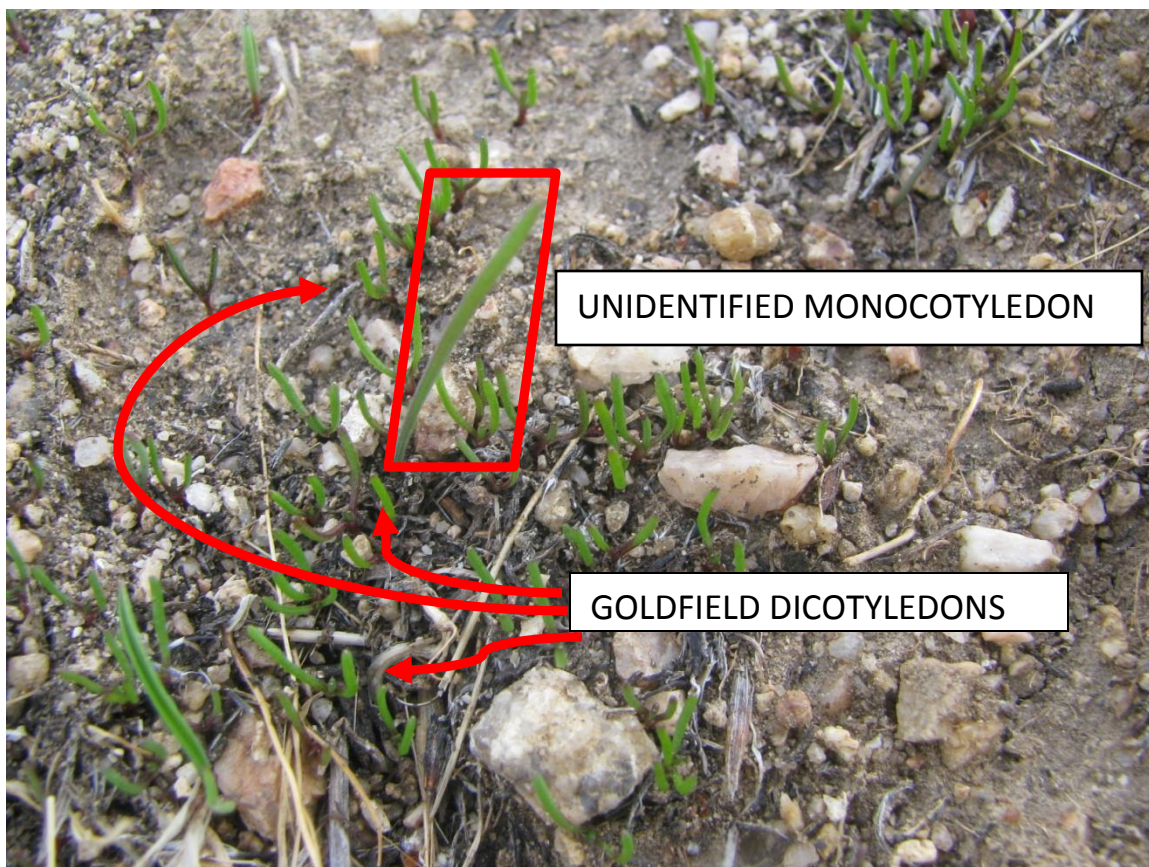


FIGURE 4: GOLDFIELD DICOTYLEDONS



FIGURE 5: UNKNOWN DICOTYLEDON WITH BEGINNING OF TRUE LEAF



FIGURE 6: TENTATIVELY IDENTIFIED DESERT PARSLEY



FIGURE 7: UNIDENTIFIED MONOCOTYLEDON



FIGURE 8: UNIDENTIFIED MONOCOTYLEDONS



FIGURE 9: NEW GALLS WITH RED COATING ON DORMANT RABBIT BRUSH PLANT



FIGURE 10: SIDE-BLOTCHED LIZARD



FIGURE 11: ¼ INCH APPROXIMATE DIAMETER BURROW