The Weekly Plant
8 Sept 2013

Common names: fluffgrass, low woollygrass
Scientific name: *Dasyochloa pulchella*[1] (formerly *Erioneuron pulchellum*)

TAV location:
Very widespread throughout Village. You will find one in the red rock, beginning-of-trail area directly across Langtry from lot 136. Look to the left (south) near the curb but still in the red rock for one plant. There are plants just outside the red rock area, on both sides, as you walk in from the curb. Stop before you get to the saguaro on the left.

Discussion:
Fluffgrass is one of the most frequently encountered grasses in the Southwest US, found in Arizona and all its bordering states plus Texas and Wyoming. It is a small grass, usually 3-6" high and about as wide. It flowers summer into fall, sometimes in spring. It is considered attractive by some because its fluffiness contrasts with the barren desert floor.

Above: fluffgrass early in season, note salty "fluff" and dried tufts of leaves and flowers. Below: fluffgrass after new summer growth, note stolons with tufts of leaves and flowers.

The names "fluffgrass" and "woollygrass" might make you think of a soft, friendly grass. Don't be fooled. By summer's end this grass becomes quite stickery and unpleasant. So, where's the fluff? On the leaves.

In spring and early summer, before the monsoon rains, the leaves of fluffgrass are covered with white, hairlike strands of excreted and evaporated mineral salts, that is, the leaves are covered in salt. Even now, after a few days without rain, I found several plants with leaves covered in "fluff". In an experimental mood, I doused half the plant with water and left the other half untouched. Within 10 seconds there was no fluff left on the wet leaves (photos below). I assume a good rain will also wash away the salts. That may explain why most of the fluffgrass around the Village has green, fluff-less leaves.

I found almost no information on why the fluff is good for this grass. One source said it reflects the most intense sun rays, allowing the grass to survive in hot, dry conditions. I can't help but wonder if it is an adaptation to growth in soils with lots of salt, a common soil situation in the desert Southwest. As roots take up water, they also take up salts. High salt levels are no better for the plant than they are for you. Other desert plants known as saltbushes (*Atriplex* spp.) are known to take up salt then excrete the excess onto their leaves. Since the salt isn't in the plant's cells, it can't interfere with the plant's metabolism. Might the fluff perform a similar function in fluffgrass?

Fluffgrass has an interesting growth form as well. Rather then staying in a tight clump, it puts out long stems with tufts of leaves and flowers on the end (above, bottom photo). You've seen this type of growth in strawberries. The long stems are called stolons. Theoretically the tuft of leaves at the end of each stolon can root and create a new plant. In the best of conditions, this grass can form a mat and cover the ground. In our harsh desert conditions, I haven't seen this happening, though a few new plants may form this way. As an experiment, I took off several of the leaf tufts and potted them up. I'll let you know if any grow into new plants.

Left: fluffgrass with fluff. Right: the same plants after the right side was drenched in water. The salty fluff washes off easily. It will also come off on your fingers if you rub a leaf.

[1] Tropicos is the source of the currently accepted scientific name: http://www.tropicos.org/.

Photos and text by Mary Welch-Keesey