



Santa Cruz NRCD – Rangeland Monitoring

Fall 2021

Work Performed by Jim Koweek

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Background information:

This partnership originally started when the NRCS had Technical Service Provider (TSP) funding within Arizona that the NRCD's could apply for. The first agreement, signed between the SCNRCD and NRCS, was in 2007. The Santa Cruz NRCD, as part of their agreement with NRCS, would host technical workshops and assist the NRCS with their vegetation monitoring workload by reading transects within the District and providing them with the data that was collected. In 2007, 7 transects were recorded as being read. In 2008 a 5 year agreement between the SCNRCD and NRCS was signed in which every year 20 transects would be read, 4 workshops would be held, quarterly newsletters published along with promoting other outreach. This TSP agreement was completed in 2012. Since then the SCNRCD has taken the initiative to continue this monitoring effort by hiring a vegetation specialist to read transects each year. Starting in 2008, Jim Koweek has been assisting the SCNRCD and the NRCS collect monitoring data within the SCNRCD.

In the early fall of each year the SCNRCD reaches out to the NRCS' Tucson Field Office to receive a list of transects within the District that they could use assistance with. This has freed up valuable time for the NRCS staff to conduct conservation planning activities to enhance our services in the area as well as helping to ensure there is a continuation of data sets collected on these long established transects. Typically, the SCNRCD funds the reading of 20-25 transects per year.

2021 Monitoring Season: October 2021 – January 2022

This monitoring season Jim completed monitoring on 25 transects. The year of 2020 was a significant drought year for Arizona. Luckily there was significant precipitation received in the summer of 2019 and winter of 2019-2020. The monitoring data of 2020, for the most part, did not show significant decreases in perennial grass species. The 2020 data did show some decrease in litter cover.

The data for 2021 (collected after the 2021 monsoon season) shows a significant increase in litter cover due to the increase in annual forbs and grasses. Some sites showed mortality of mature perennial grasses, however a lot of seedlings of perennial grasses were noted as coming back in. Some sites showed an increase of Lehmann lovegrass and other invasive species were noted as increasing or occurring for the first time, especially African lovegrass and Yellow bluestem.

The western side of the Santa Cruz NRCD showed more significant impacts due to the drought. Some sites showed significant decreases in native perennial grasses and an increase in Lehmann lovegrass.

Monitoring completed in the Fall of 2021

<u>Date</u>	<u>Ranch</u>	<u>Pasture or KA</u>
10/15	San Rafael	KA 3, KA 4
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10/18	San Rafael	KA 5
10/19	Babacomari	KA 10, KA 12
10/20	Schock	KA 1
10/20	Kunde	Bible, Sorrels
10/26	Rosetree	KA 1, KA 5
10/27	Rosetree	KA 6, BA 2
10/29	Santa Fe	KA 3, KA 4
11/2	Babacomari	KA 31
11/3	Open Cross	Rincon, Cordon
11/05	Babacomari	KA18
11/16	Sycamore	KA 1, KA 2, KA 3
11/17	Open Cross	Cemetery
11/19	Open Cross	Collie
12/13	O'Donnell	C 2
1/11	Walking S	BT 1

Submitted By:

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