

Figure A.2 1987-2021 RDM by key area transect

The figures for the following Residual Dry Matter (RDM) values show annual variation in RDM for all years where transects were sampled with double-sampling monitoring, visual estimation, or three representative clips, as described in section 6.2. The solid grey bars with whiskers show the double-sampling RDM estimates and the corresponding 95% confidence interval. Whiskers are not shown for incomplete double-sampling estimates or the 3 representative clips where a confidence interval is not calculated. The bars with only diagonal hash marks show visual estimates of RDM. Any bar that shows grey and hash marks represents a transect that in one year had some clipped estimates and visual estimation but only double-sampling if there are whiskers to represent the 95% confidence interval. The solid black line marks the 1,200 lbs/acre minimum RDM standard.

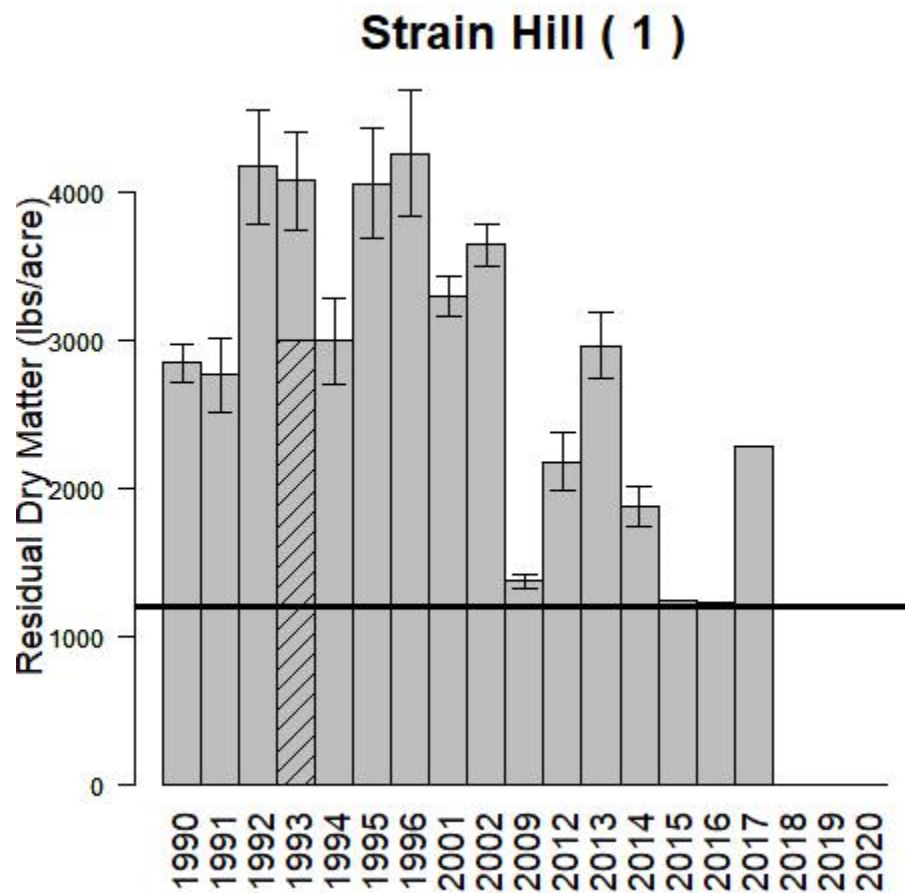


Figure 1: Strain Hill (RDM plot 1) values 1990–2017. Data from 1990–2014 was collected using methods outlined in NPS 1990. Data from 2015–2017 was collected using methods outlined in Bartolome et al. 2015. No data has been collected since 2017.

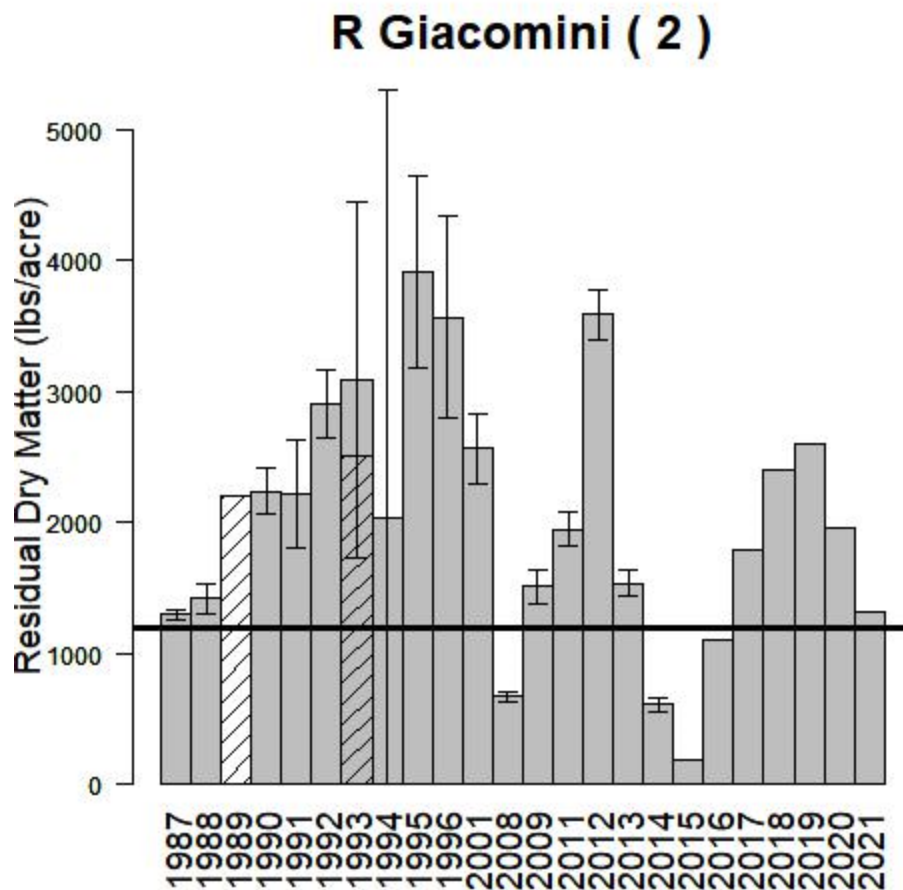


Figure 2: R. Giacomini South RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990¹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015². **This year's RDM value was 1310 lbs/acre.**

*In 2021, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported in Figure 2.

¹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

² Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

Stewart Truttman (3)

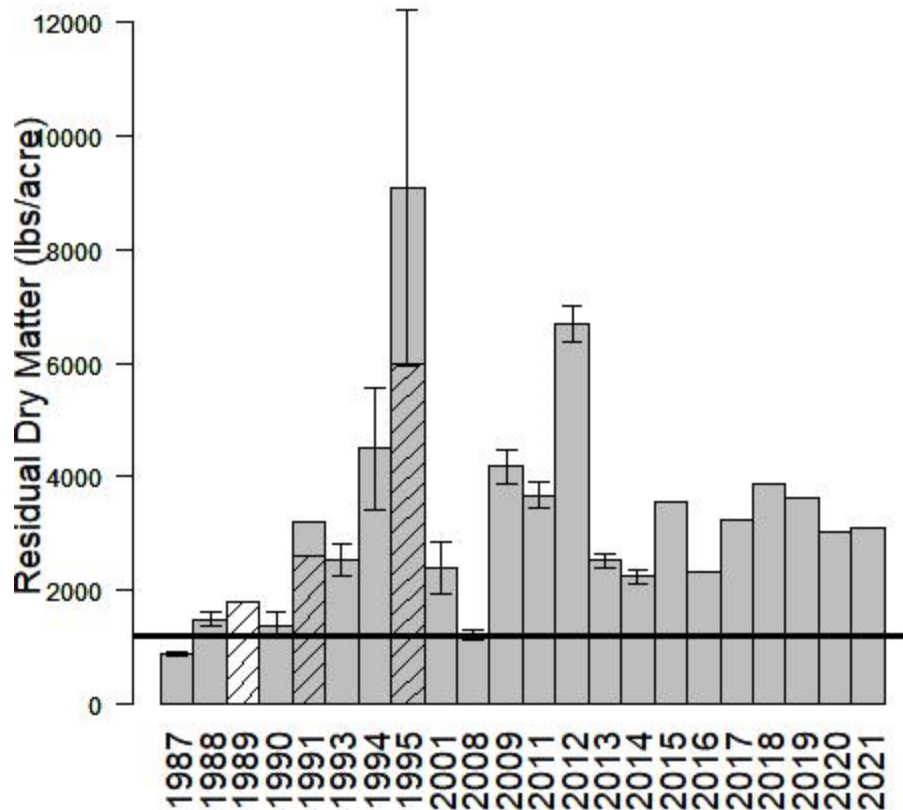


Figure 3: Stewart Truttman RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990³. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁴. **This year's RDM value was 3100 lbs/acre.**

*In 2018-2020, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported in Figure 3.

³ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁴ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

Stewart Lupton (4)

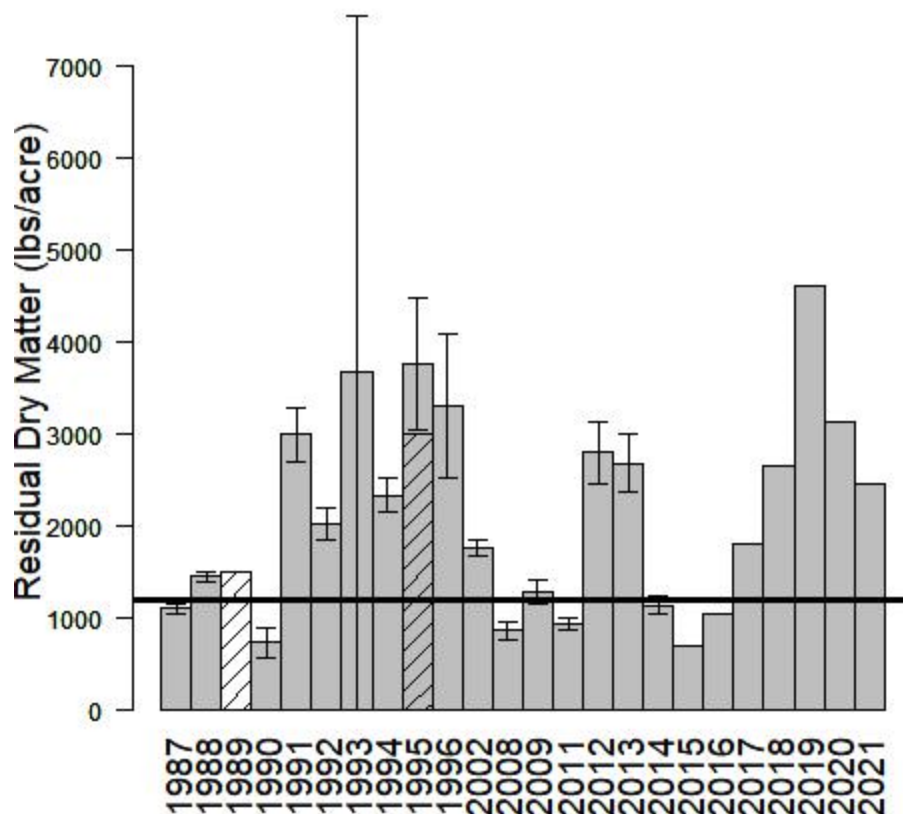


Figure 4: Stewart Lupton RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁵. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁶. **This year's RDM value was 2457 lbs/acre.**

*In 2018, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported in Figure 4.

⁵ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁶ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

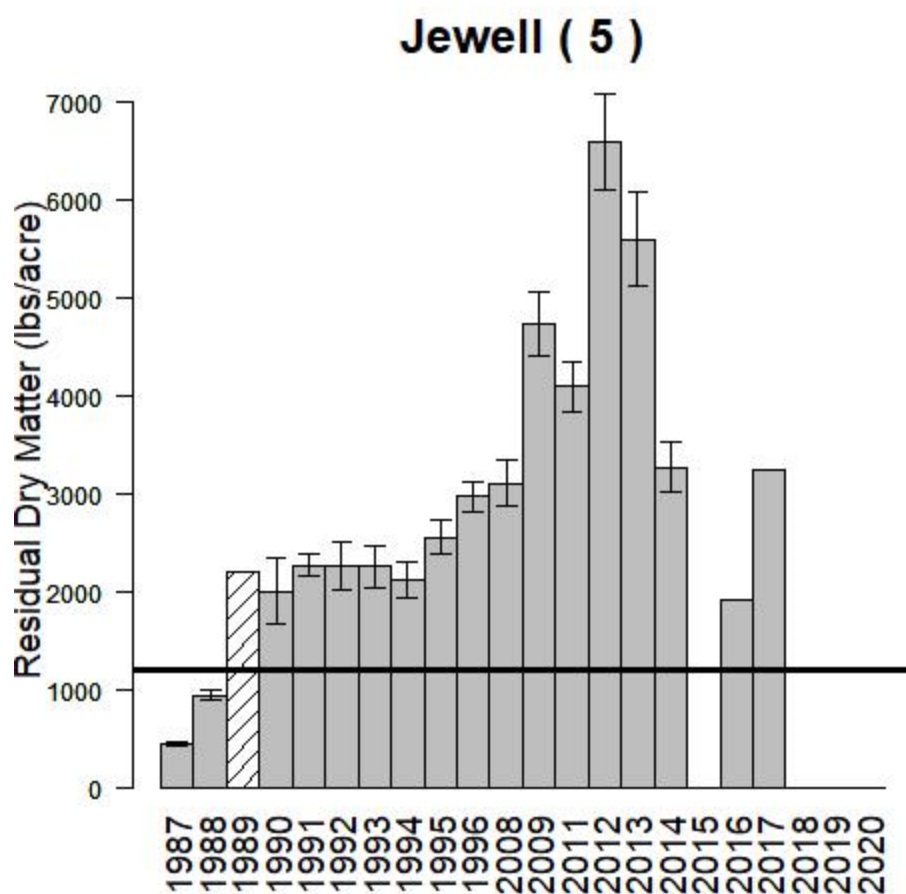


Figure 5: Jewell (RDM plot 5) values 1987–2017. Data from 1987–2014 was collected using methods outlined in NPS 1990. Data from 2015–2017 was collected using methods outlined in Bartolome et al. 2015. No data has been collected since 2017.

Mclsaac Bolinas (6)

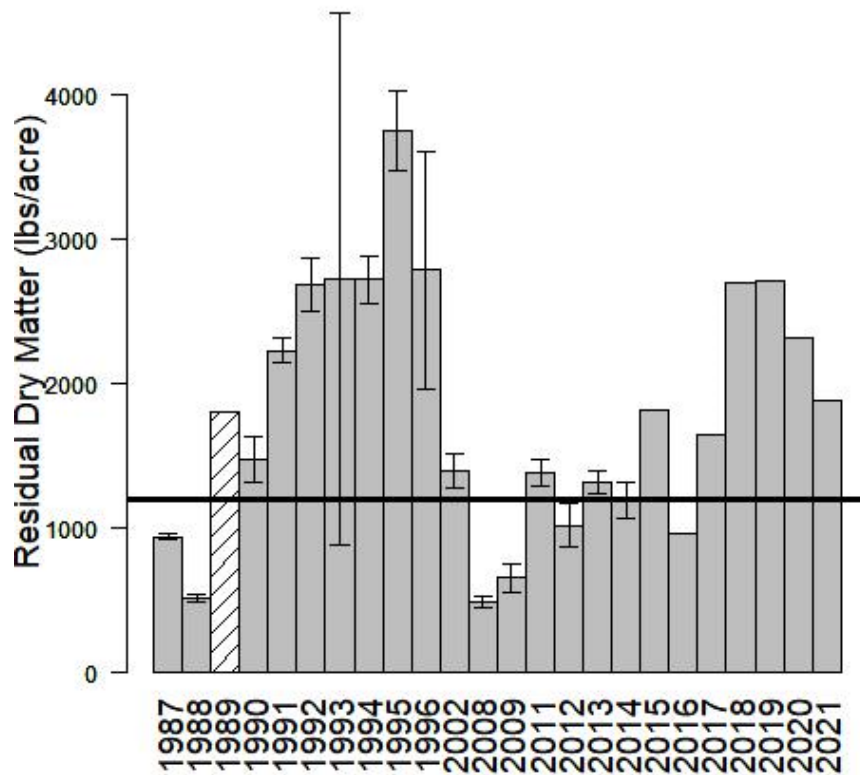


Figure 6: Mclsaac Bolinas RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁷. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁸. **This year's RDM value was 1887 lbs/acre.**

*In 2018 and 2020, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported in Figure 6.

⁷ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁸ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

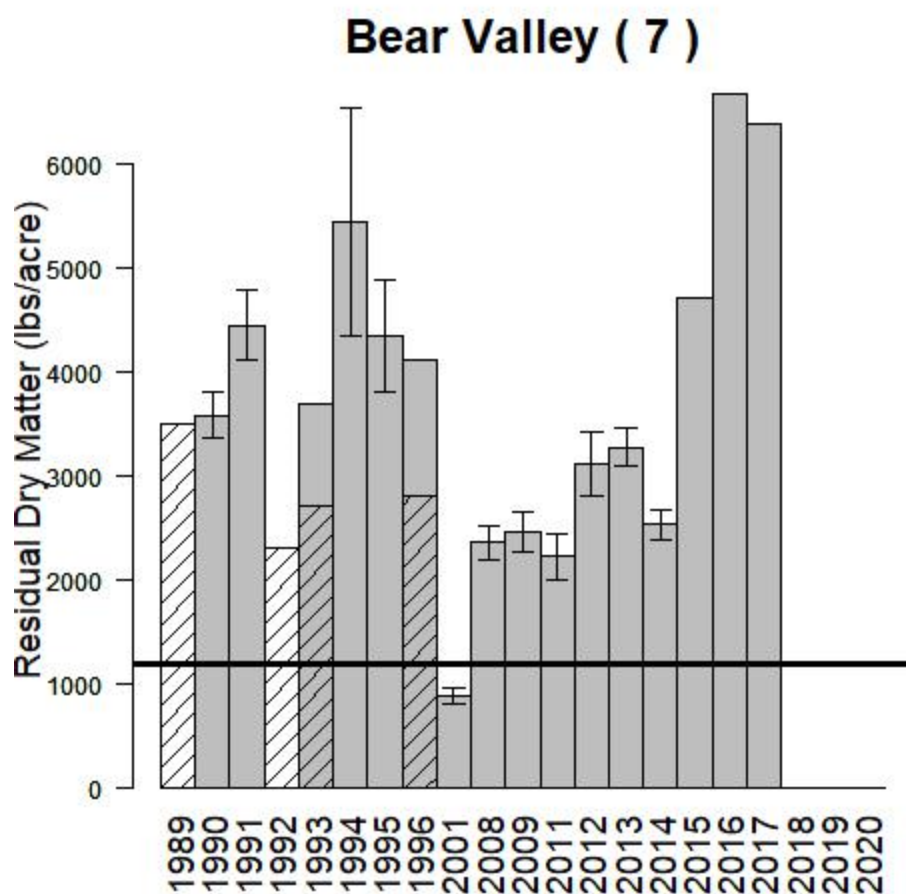


Figure 7: Bear Valley (RDM plot 7) values 1989–2017 Data from 1989–2014 was collected using methods outlined in NPS 1990. Data from 2015–2017 was collected using methods outlined in Bartolome et al. 2015. No data has been collected since 2017.

R Giacomini (8)

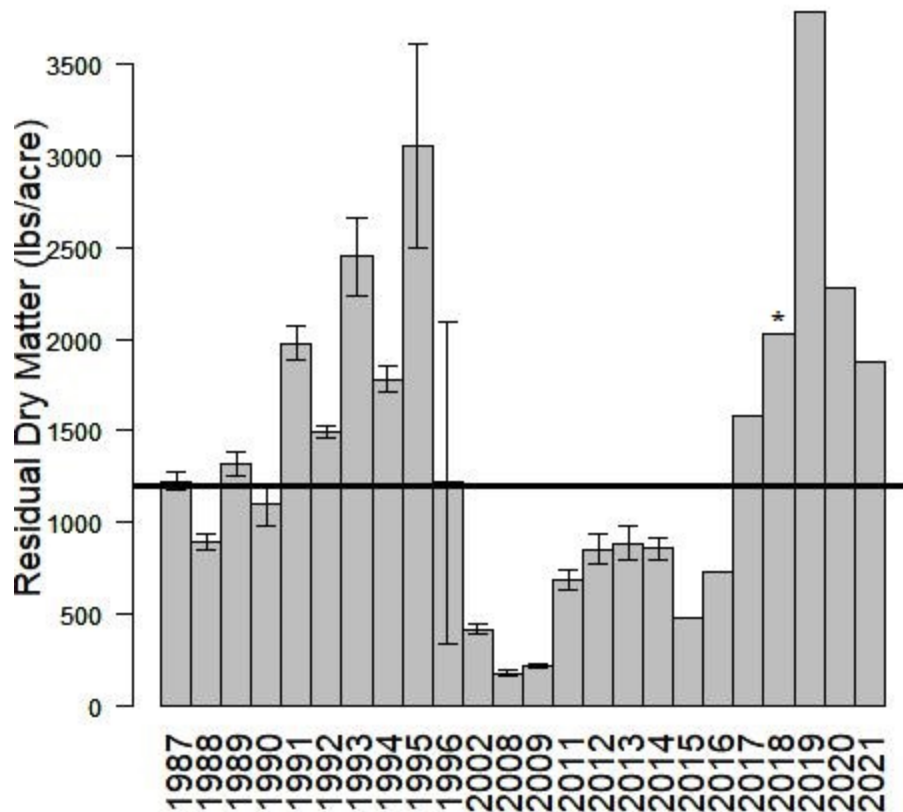


Figure 8: R. Giacomini North RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015¹⁰. **This year's RDM value was 1880 lbs/acre.**

* In 2019-2021, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported for 2019-2021 in Figure 8. In 2018, onion grass was estimated to be greater than 25% ground cover and removed from clipped samples to obtain the RDM result shown for 2018 in Figure 8.

⁹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

¹⁰ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

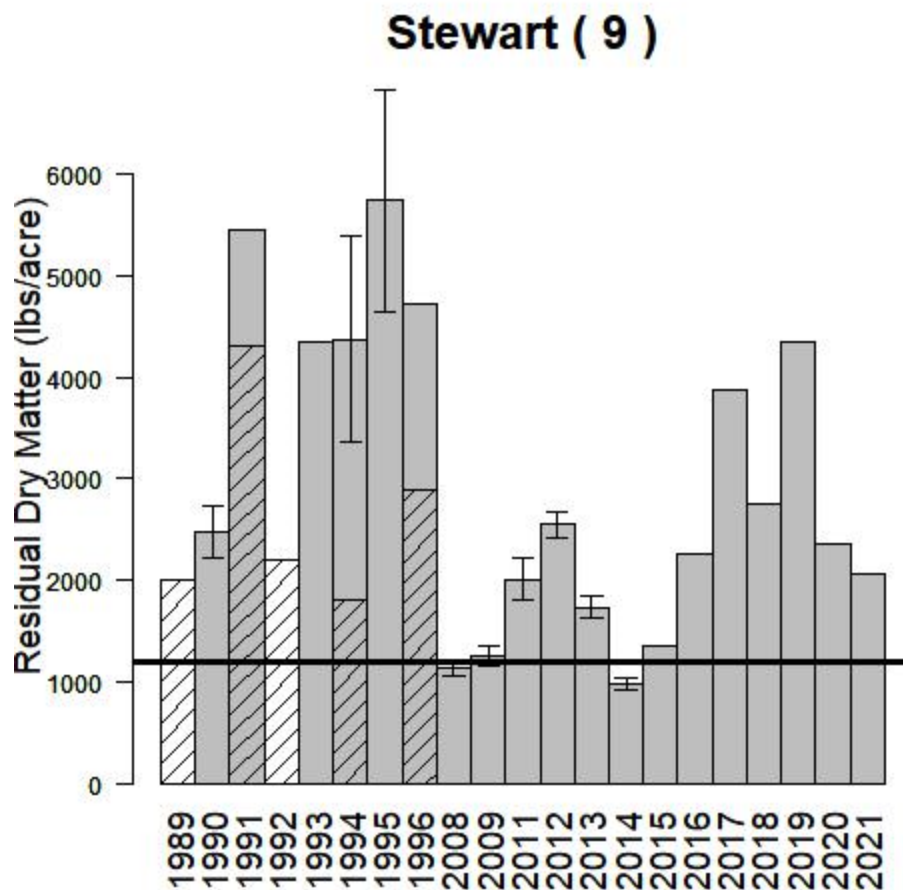


Figure 9: Stewart Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990¹¹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015¹². **This year's RDM value was 2057 lbs/acre.**

*In 2018, 2020, and 2021, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported in Figure 9.

¹¹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

¹² Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

Martinelli (10)

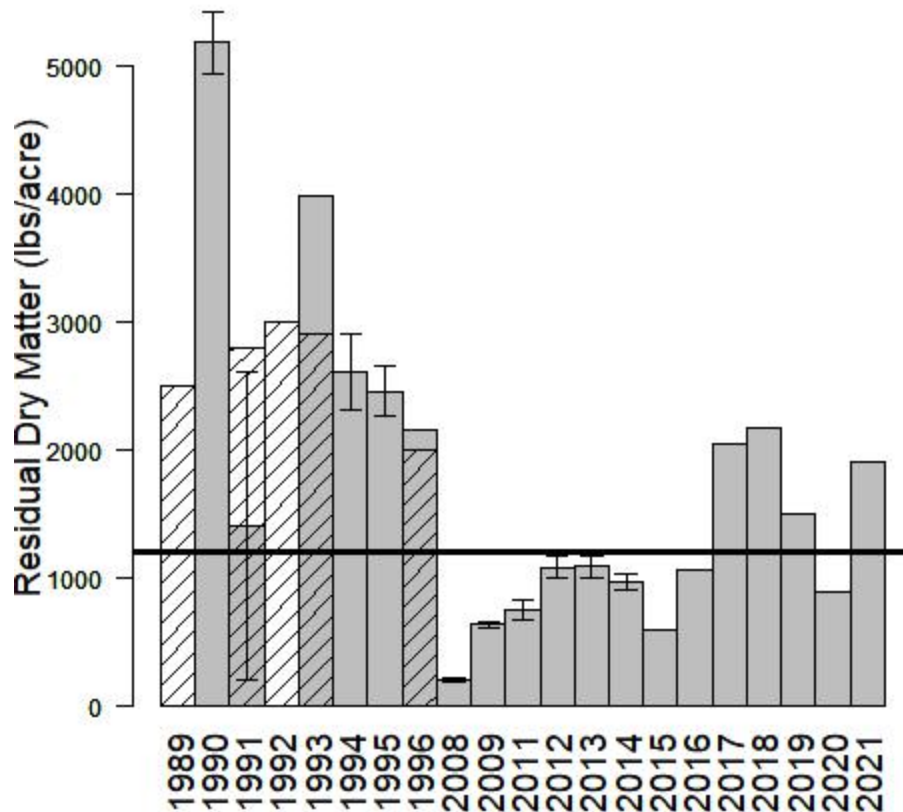


Figure 10: Martinelli Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990¹³. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015¹⁴. **This year's RDM value was 1900 lbs/acre.**

*In 2018-2021, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported in Figure 10.

¹³ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

¹⁴ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

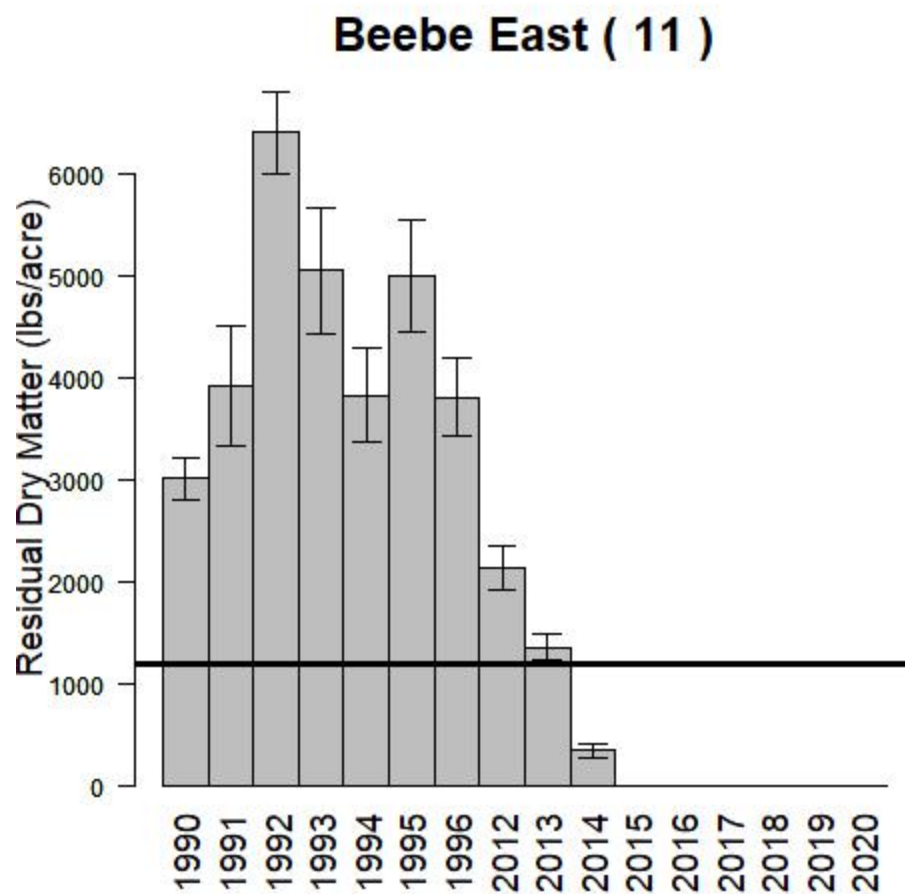


Figure 11: Beebe East (RDM plot 11) values 1990–2014. Data from 1990–2014 was collected using methods outlined in NPS 1990. No data has been collected since 2014.

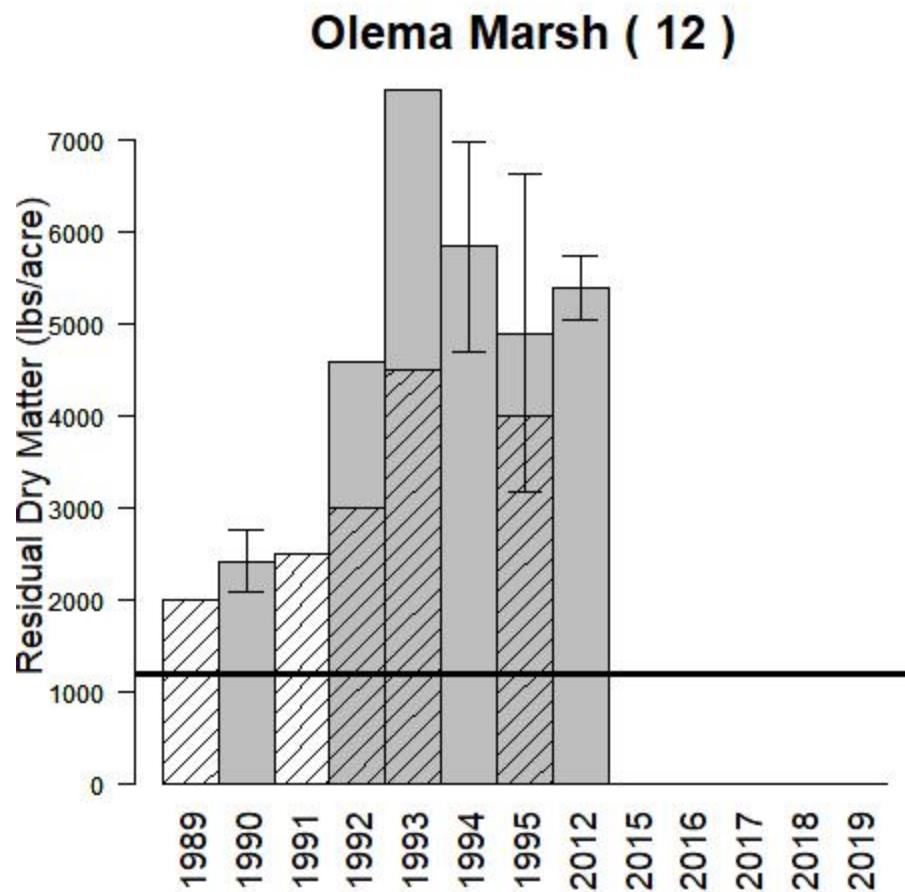


Figure 12: Olema Marsh, formerly Rodoni SUP, (RDM plot 12) values 1989–2012. Data from 1989–2012 was collected using methods outlined in NPS 1990. No data has been collected since 2012.

Mclsaac Bolinas (13)

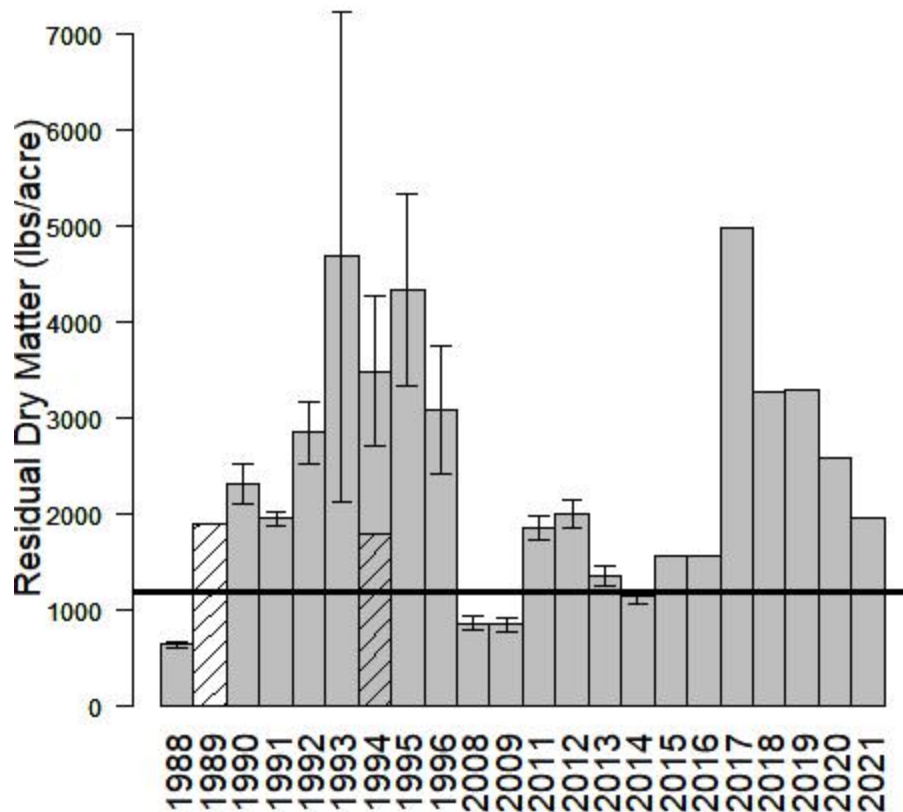


Figure 13: Mclsaac Bolinas RDM plot values 1988-present. Data from 1988-2014 was collected using methods outlined in NPS 1990¹⁵. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015¹⁶. **This year's RDM value was 1963 lbs/acre.**

*In 2018-2021, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported in Figure 13.

¹⁵ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

¹⁶ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

J Ranch North (14)

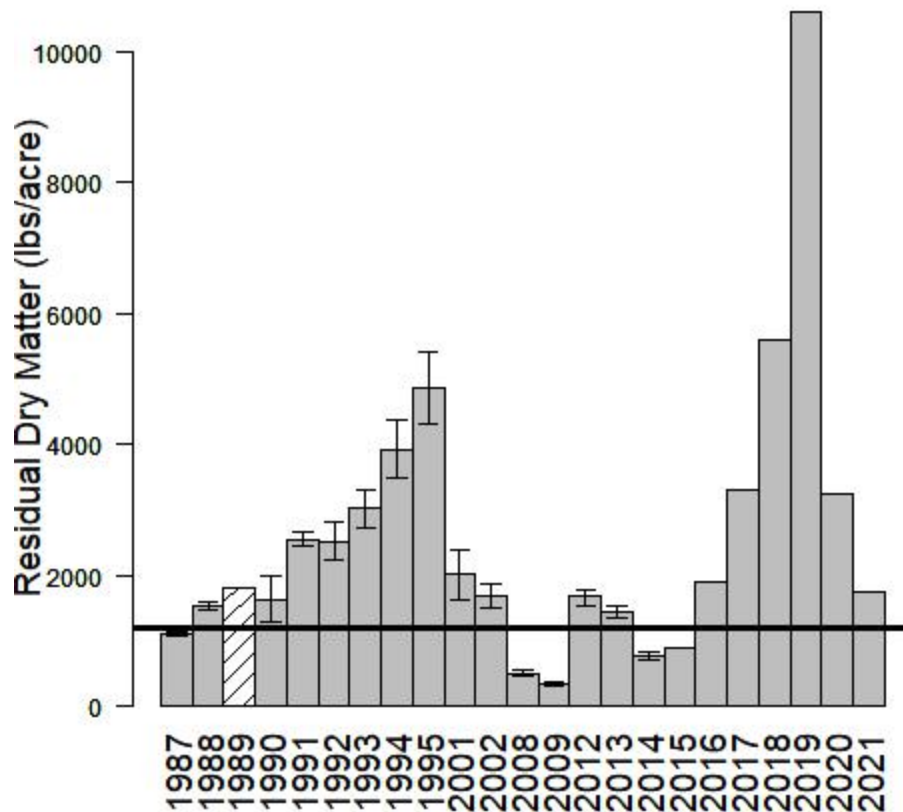


Figure 14: J Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990¹⁷. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015¹⁸. **This year's RDM value was 1733 lbs/acre.**

¹⁷ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

¹⁸ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

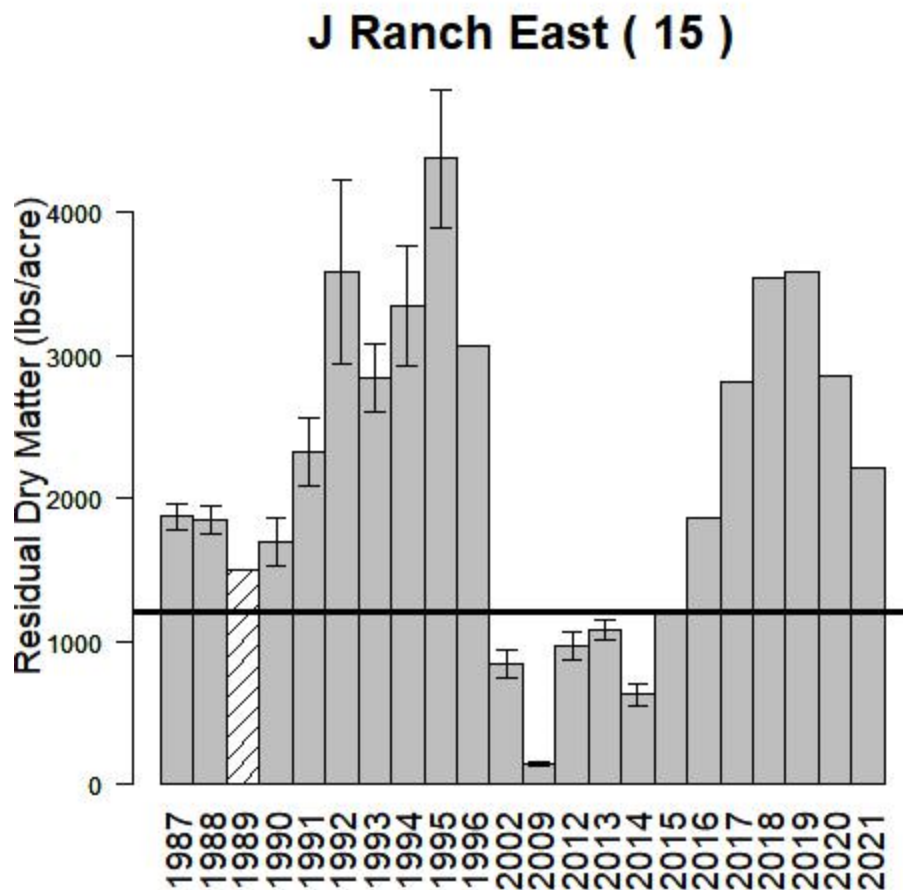


Figure 15: J Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990¹⁹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015²⁰. **This year's RDM value was 2207 lbs/acre.**

¹⁹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

²⁰ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

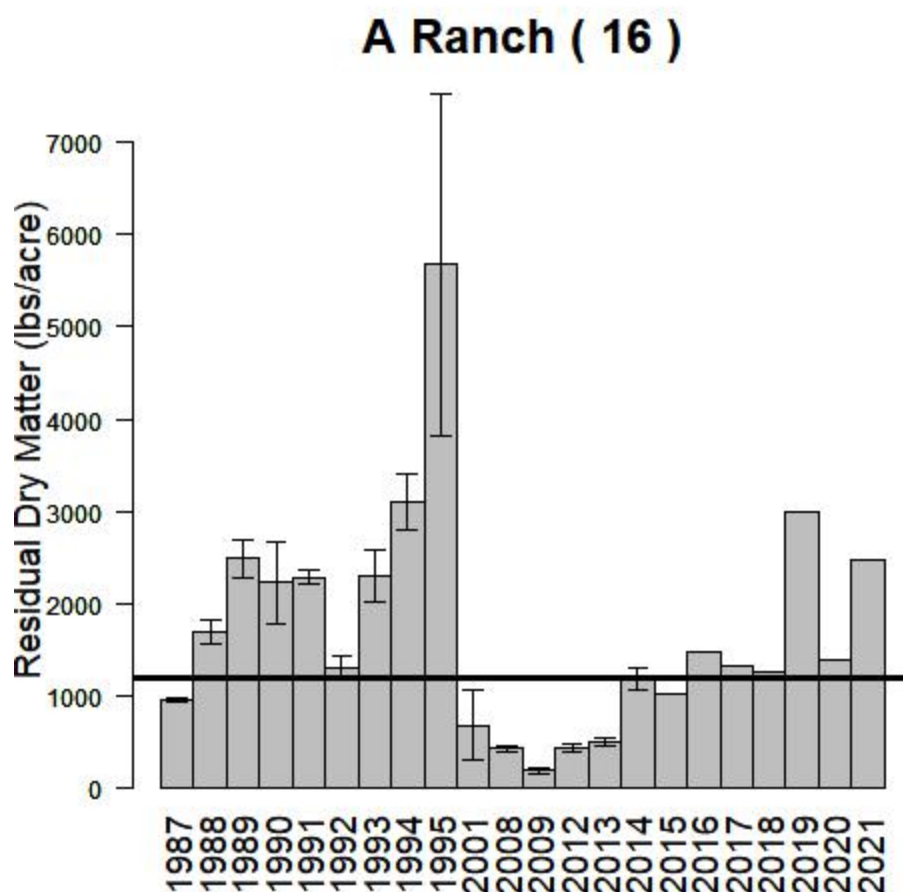


Figure 16: A Ranch (transect 16) RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990²¹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015²². **This year's RDM value was 2463 lbs/acre.**

²¹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

²² Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

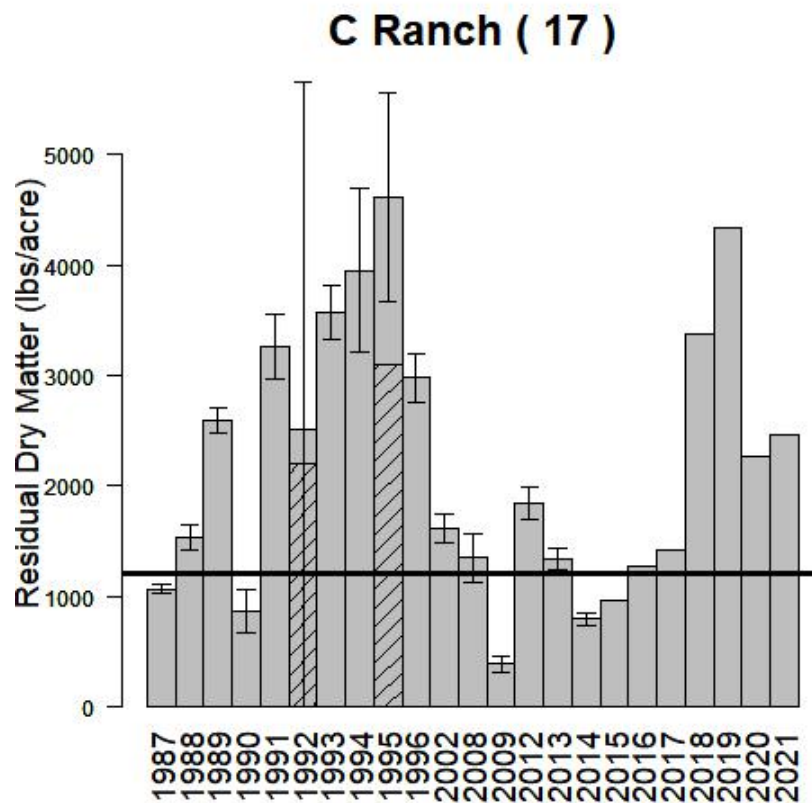


Figure 17: C Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990²³. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015²⁴. **This year's RDM value was 2453 lbs/acre.**

²³ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

²⁴ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

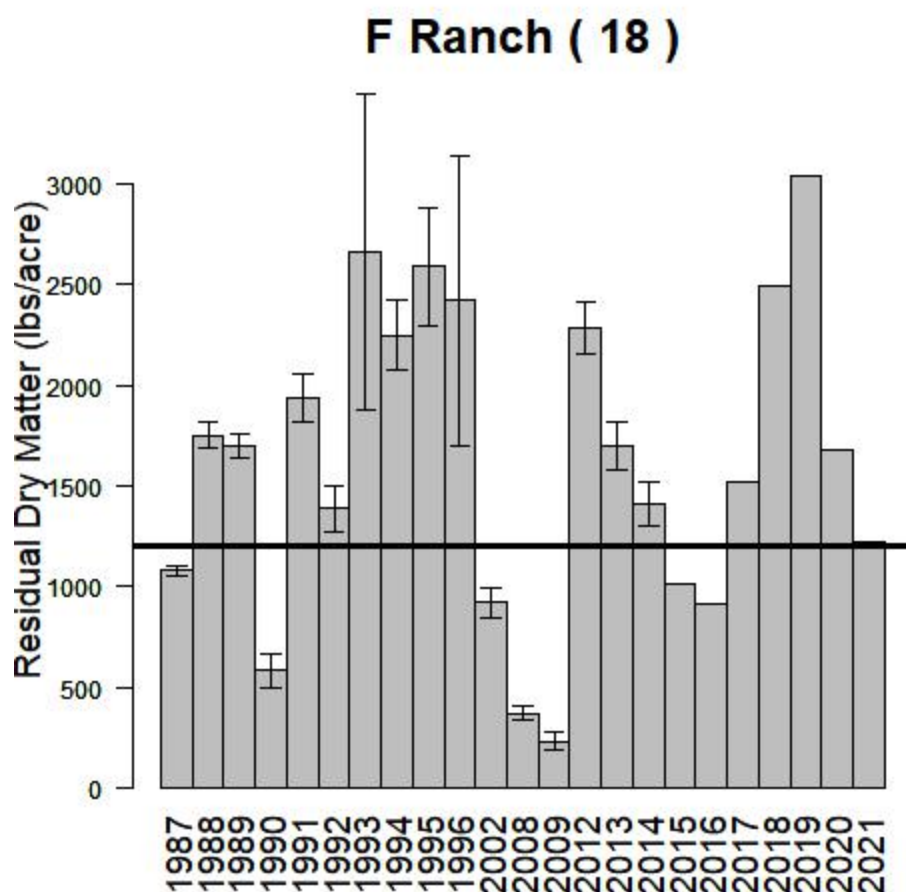


Figure 18: F Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990²⁵. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015²⁶. **This year's RDM value was 1227 lbs/acre.**

*In 2018-2021, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported in Figure 18.

²⁵ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

²⁶ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

E Gallagher (19)

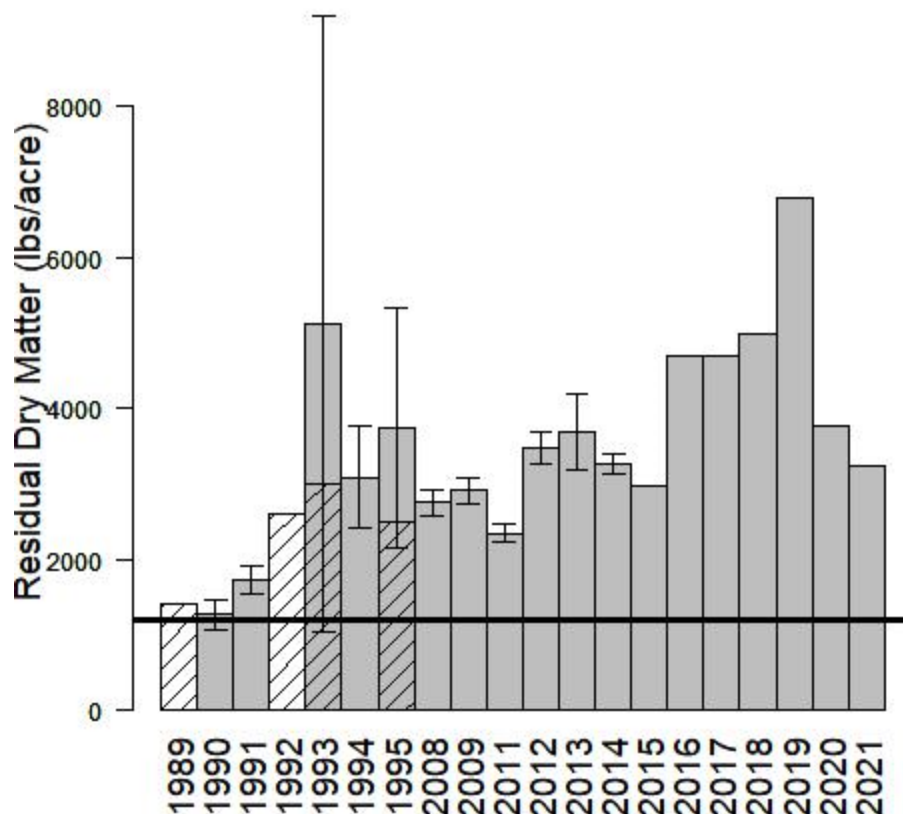


Figure 19: E. Gallagher Ranch RDM plot values 1989-present. Data from 1989-2014 was collected using methods outlined in NPS 1990²⁷. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015²⁸. **This year's RDM value was 3243 lbs/acre.**

²⁷ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

²⁸ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

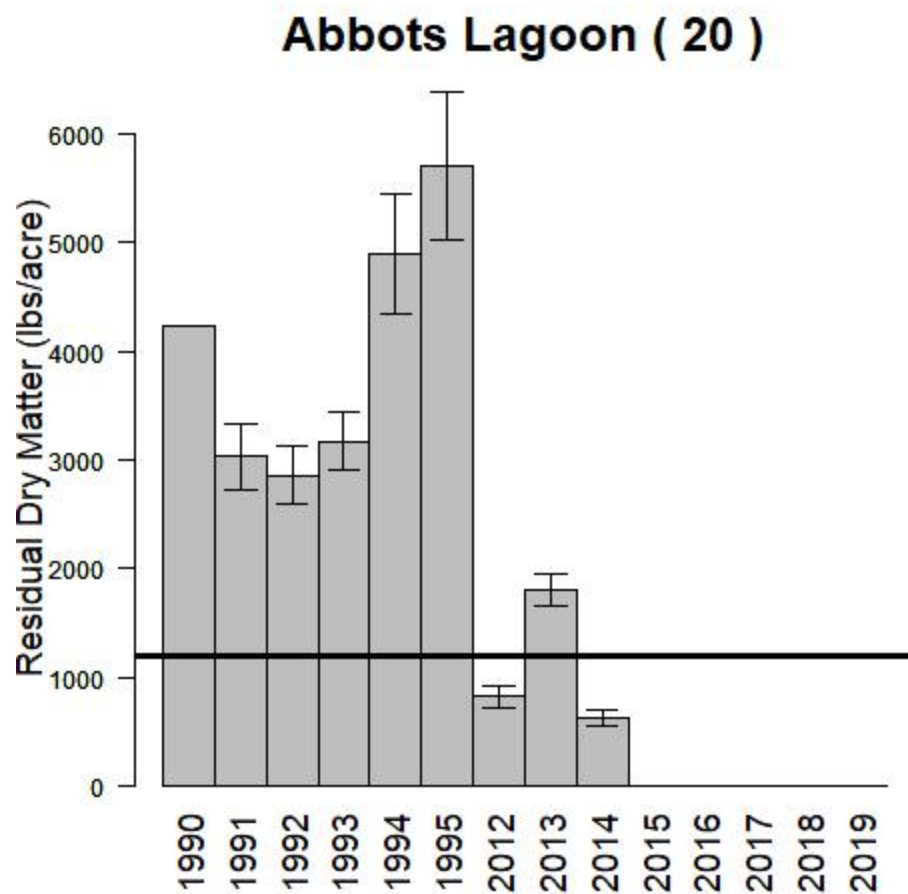


Figure 20: Abbots Lagoon (RDM plot 20) values 1990–2014. Data from 1990–2014 was collected using methods outlined in NPS 1990. No data has been collected since 2014.

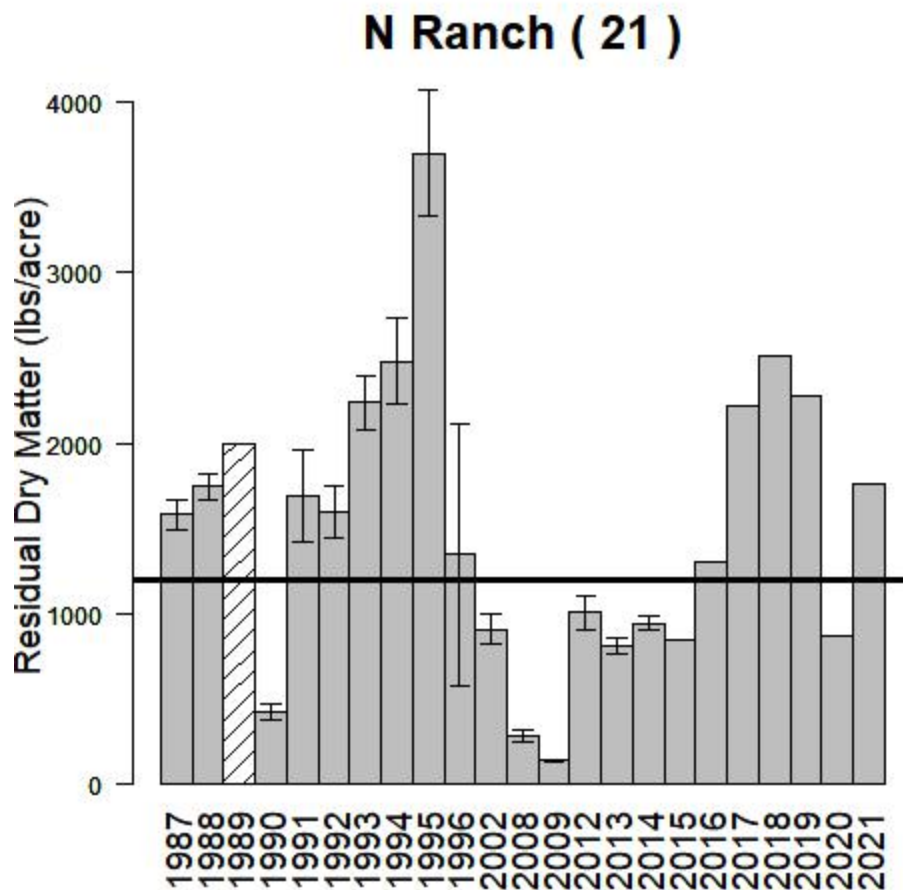


Figure 21: N Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990²⁹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015³⁰. **This year's RDM value was 1757 lbs/acre.**

²⁹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

³⁰ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

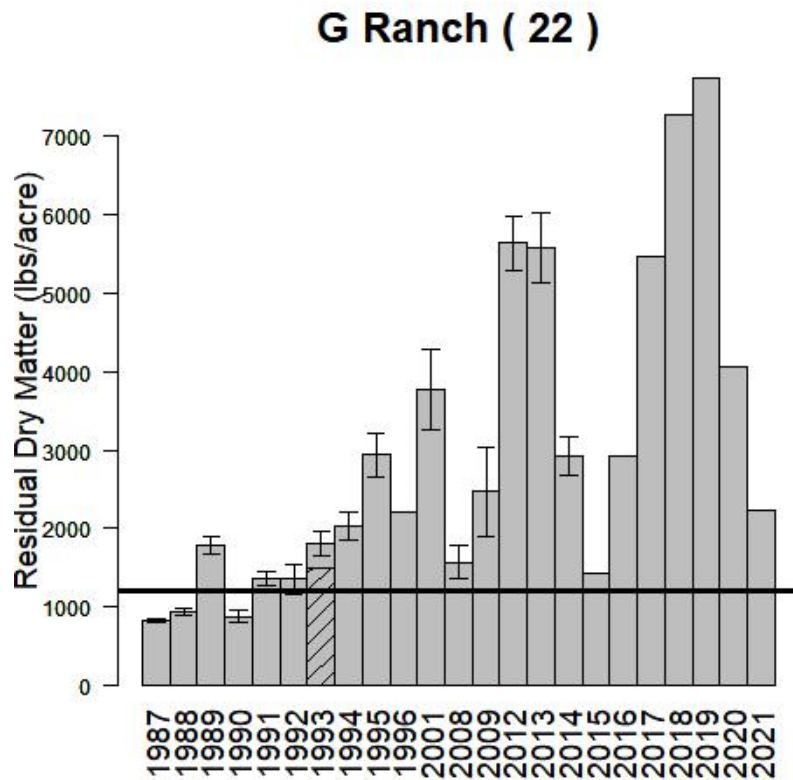


Figure 22: G Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990³¹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015³². **This year's RDM value was 2243 lbs/acre.**

³¹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

³² Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

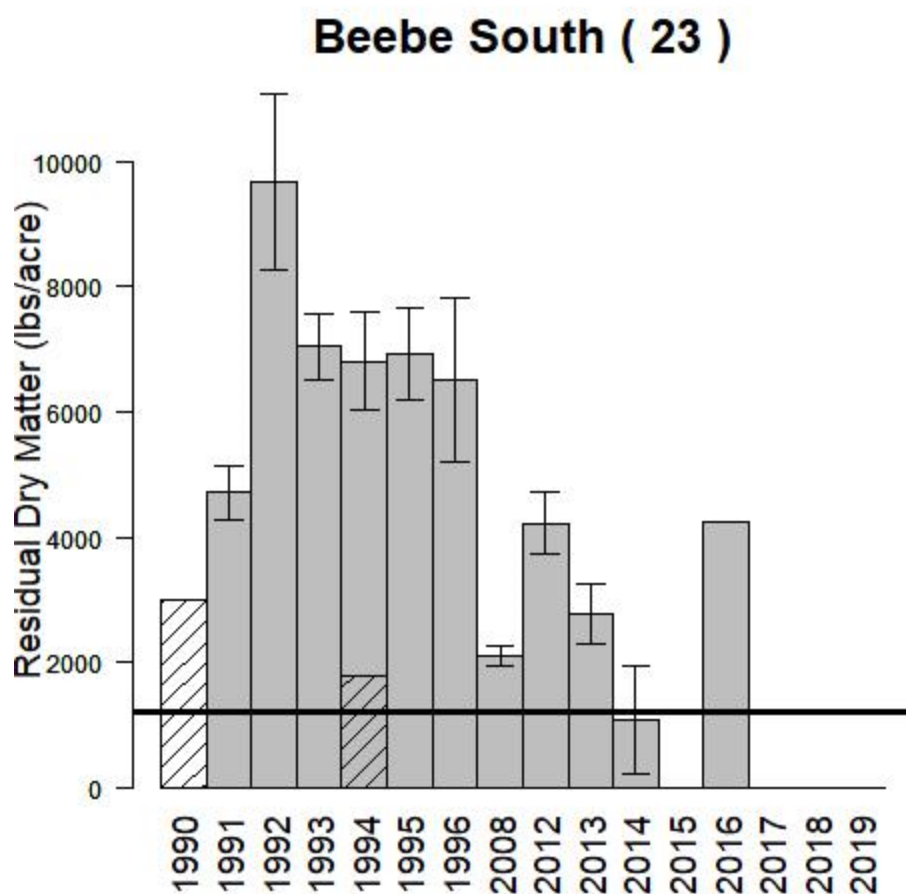


Figure 23: Beebe South (RDM plot 23) values 1990–2016. Data from 1990–2014 was collected using methods outlined in NPS 1990. Data in 2016 was collected using methods outlined in Bartolome et al. 2015. No data has been collected since 2016.

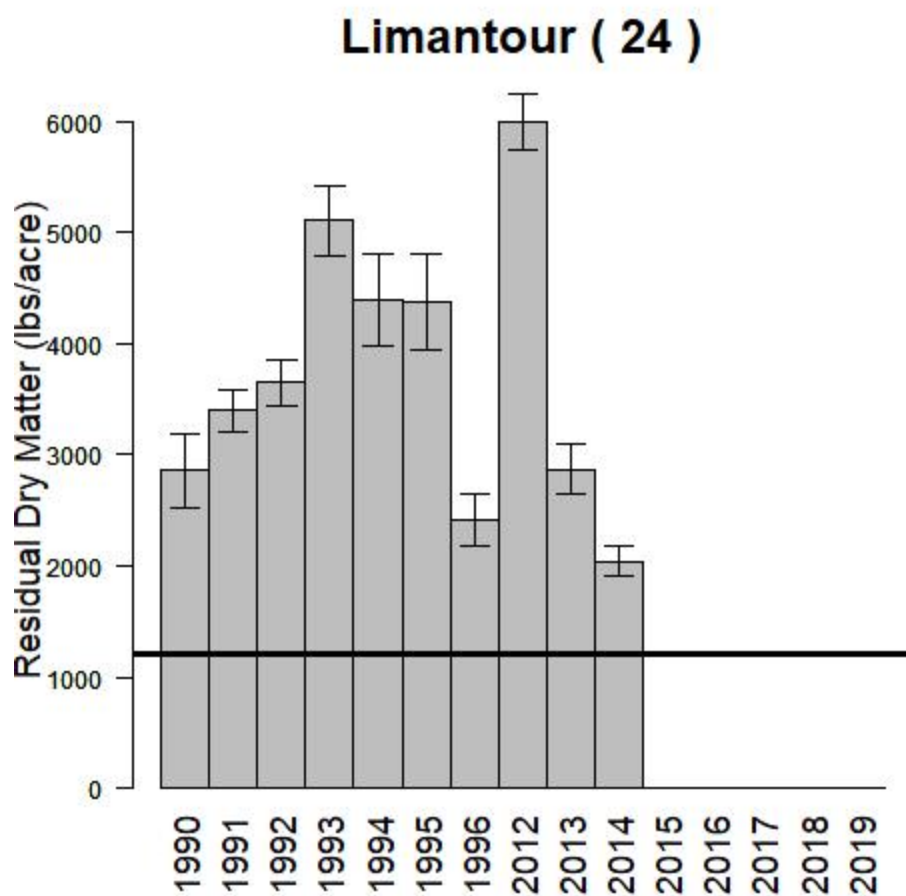


Figure 24: Limantour (RDM plot 24) values 1990–2014. Data from 1990–2014 was collected using methods outlined in NPS 1990. No data has been collected since 2014.

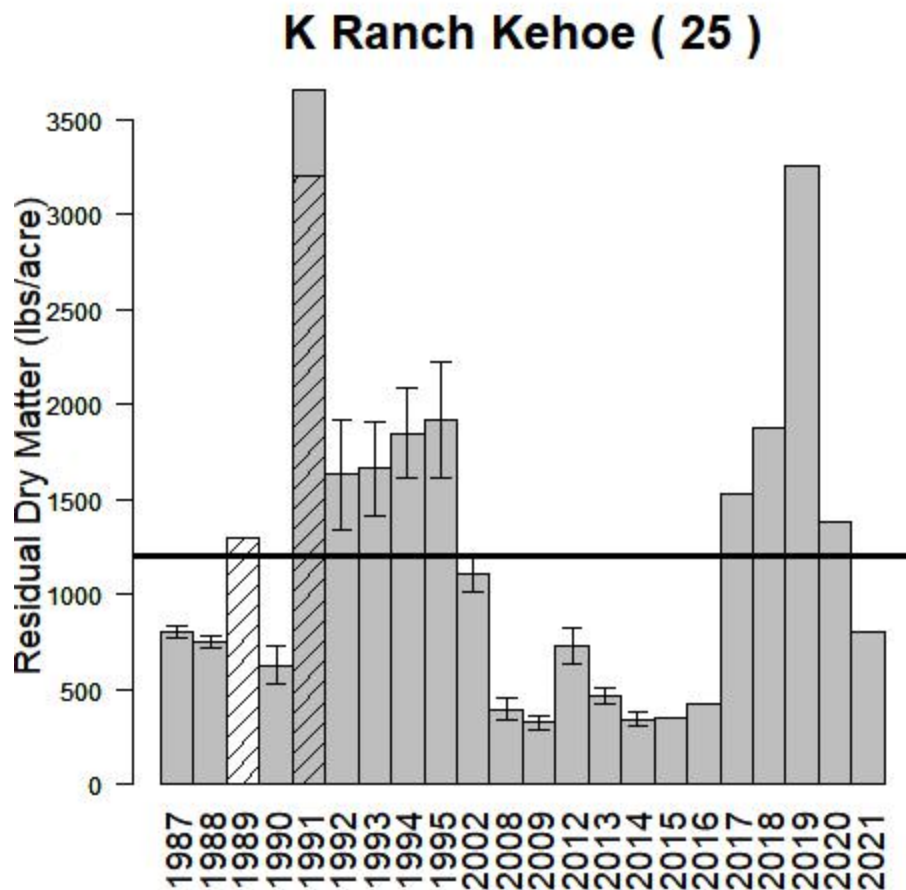


Figure 25: K Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990³³. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015³⁴. **This year's RDM value was 800 lbs/acre.**

³³ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

³⁴ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

K Ranch Evans (26)

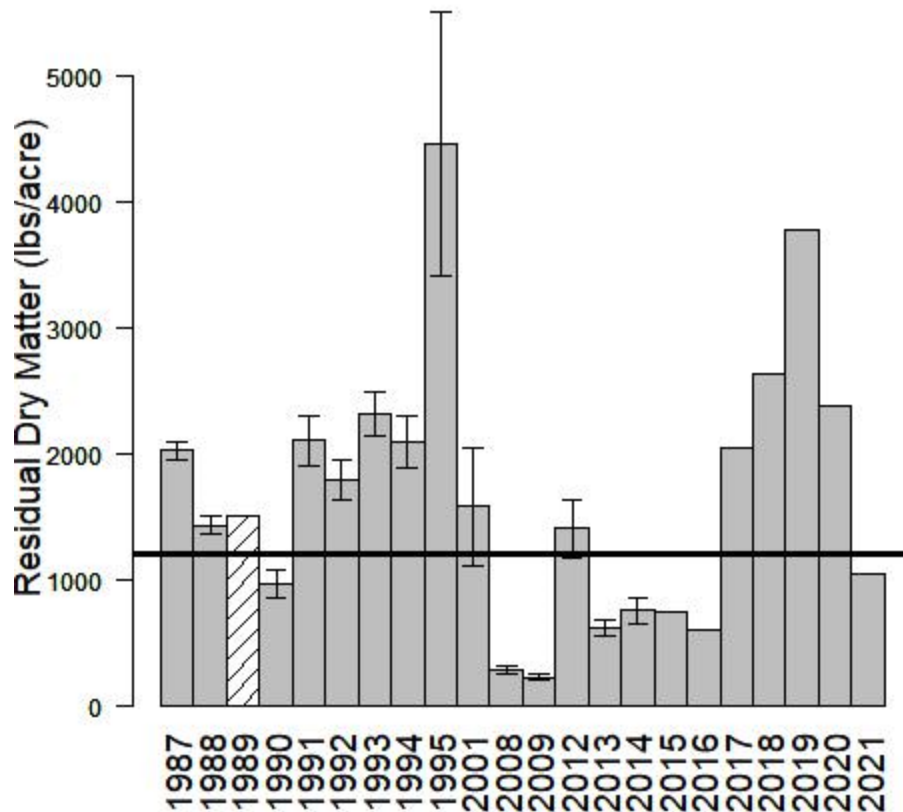


Figure 26: K Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990³⁵. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015³⁶. **This year's RDM value was 1053 lbs/acre.**

³⁵ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

³⁶ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

Commonweal (27)

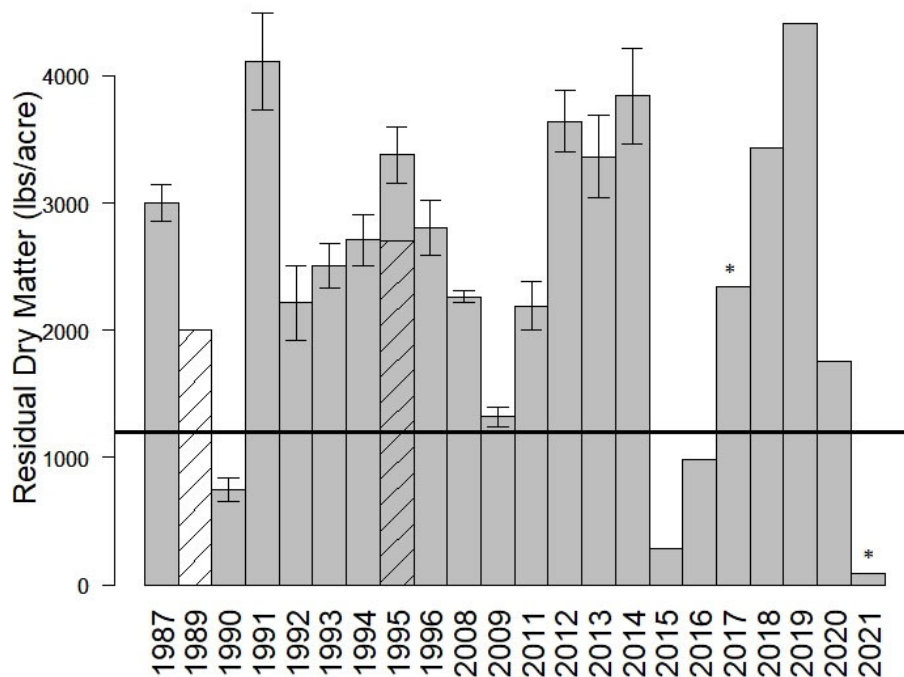


Figure 27: Commonweal South RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990³⁷. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015³⁸. **This year's RDM value was 87 lbs/acre.**

* In 2017, 2018, and 2021, onion grass (*Romulea rosea*) was estimated to be greater than 25% ground cover and removed from clipped samples to obtain the RDM results shown in Figure 27. Including onion grass in the 2021 result gives a total RDM of 1657 lbs/acre. This is approximately 95% of the sample dry weight (1570 lbs/acre). In 2019-2020, onion grass was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported for 2019-2020 in Figure 27.

³⁷ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

³⁸ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

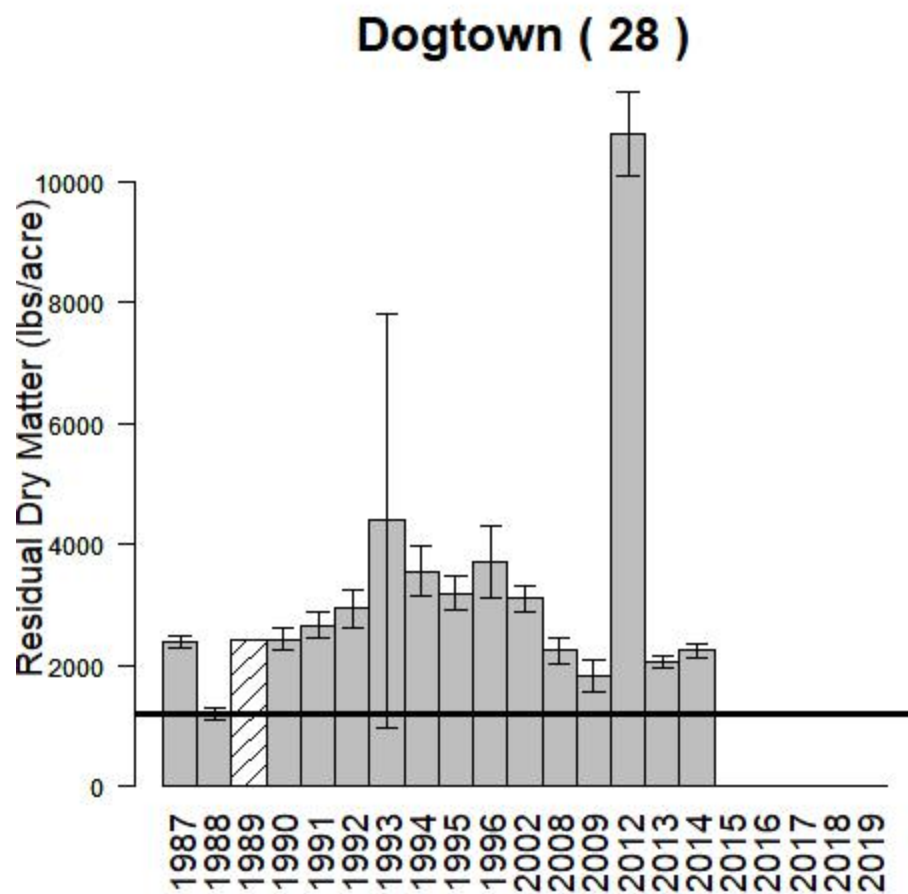


Figure 28: Dogtown (RDM plot 28) values 1987–2014. Data from 1987–2014 was collected using methods outlined in NPS 1990. No data has been collected since 2014.

Home Ranch (29)

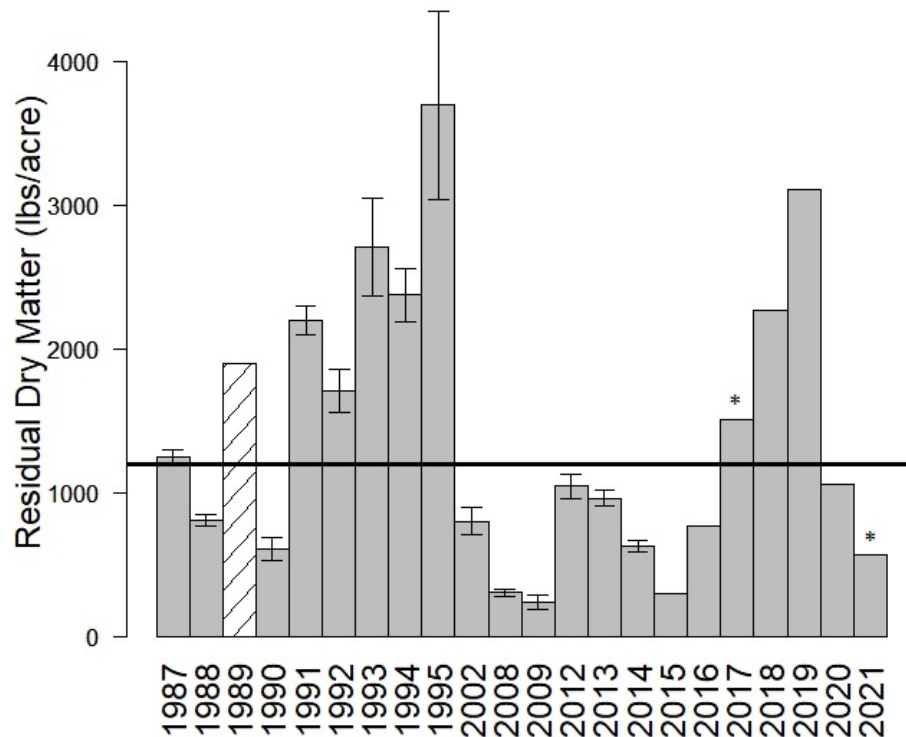


Figure 29: Home Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990³⁹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁴⁰. **This year's RDM value was 567 lbs/acre.**

* In 2017 and 2021, onion grass (*Romulea rosea*) was estimated to be greater than 25% ground cover and removed from clipped samples to obtain the RDM result shown in Figure 29. Including onion grass in the 2021 result gives a total RDM of 873 lbs/acre. This is approximately 35% of the sample dry weight (307 lbs/acre). In 2018-2020, onion grass was detected at this site with visually estimated ground cover less than 25%, and therefore not removed from the dry weight reported in Figure 29.

³⁹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁴⁰ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

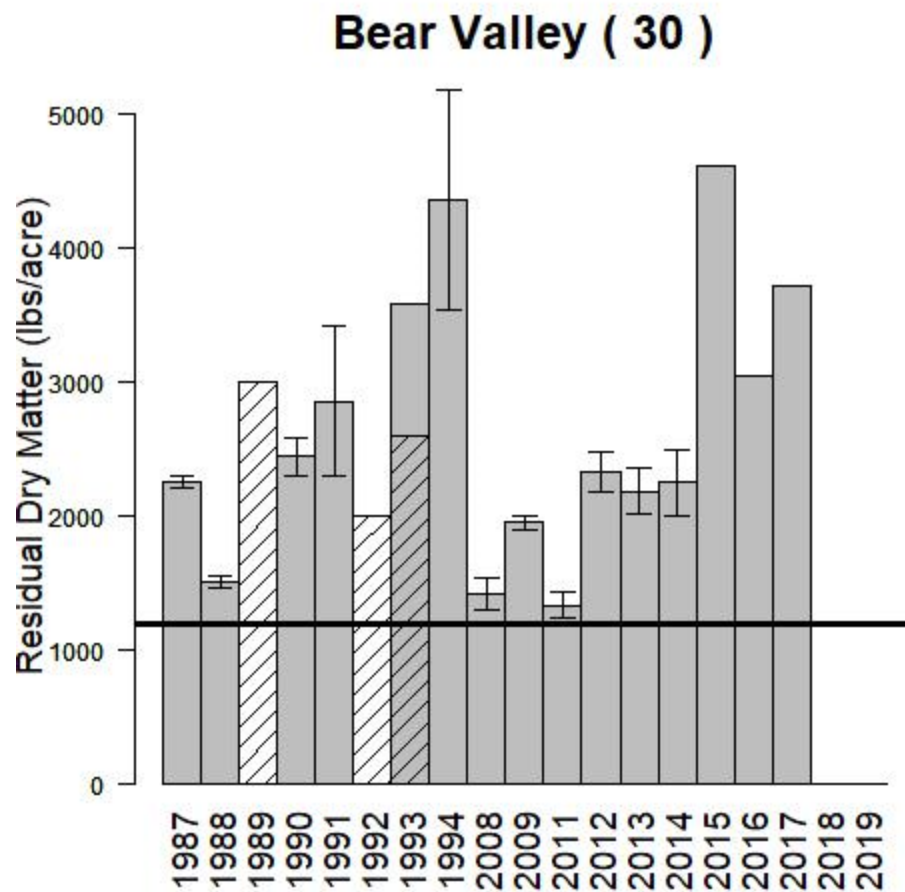


Figure 30: Bear Valley (RDM plot 30) values 1987–2017. Data from 1987–2014 was collected using methods outlined in NPS 1990. Data from 2015–2017 was collected using methods outlined in Bartolome et al. 2015. No data has been collected since 2017.

Mclsaac West (31)

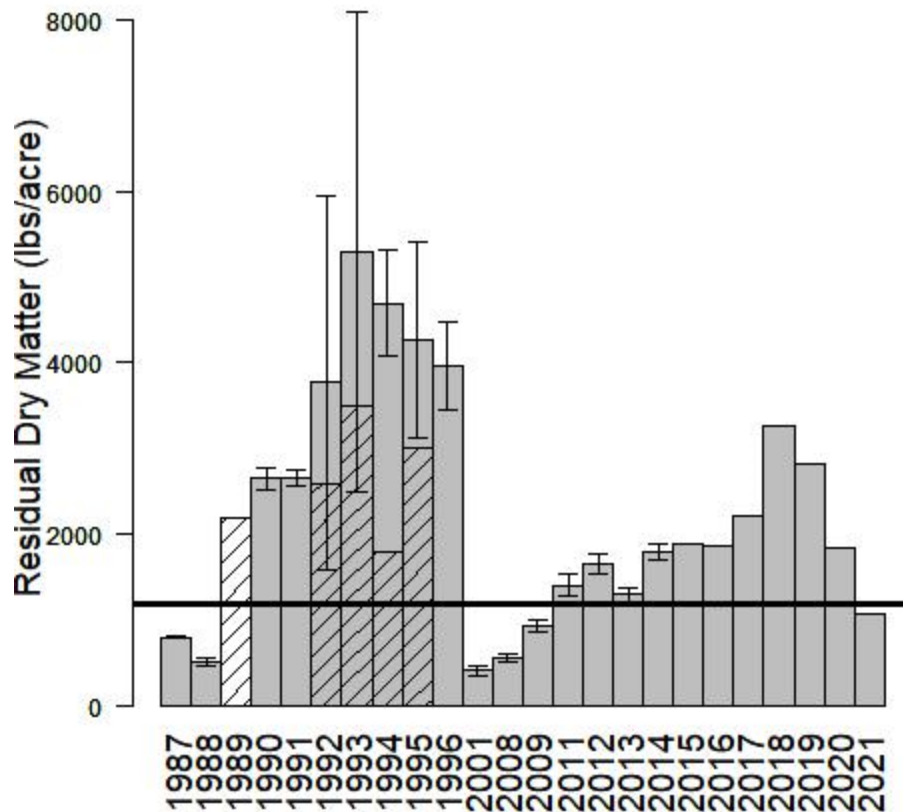


Figure 31: Mclsaac West RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁴¹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁴². **This year's RDM value was 1063 lbs/acre.**

*In 2021, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported in Figure 31.

⁴¹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁴² Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

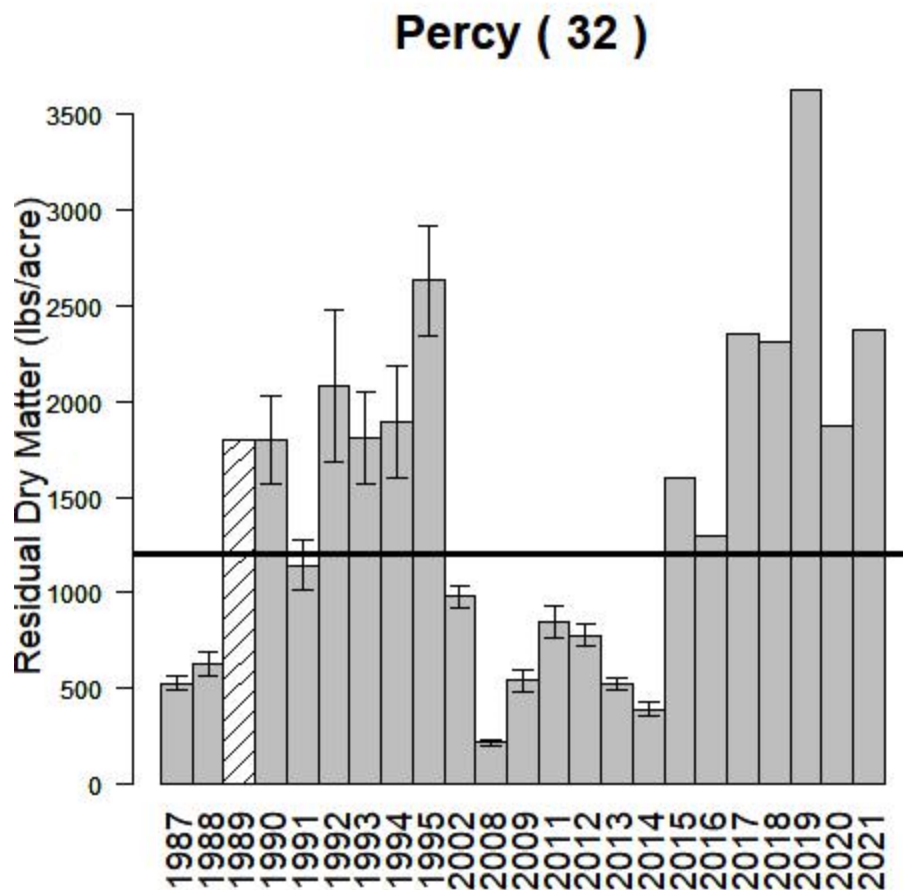


Figure 32: Percy Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁴³. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁴⁴. **This year's RDM value was 2377 lbs/acre.**

⁴³ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁴⁴ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

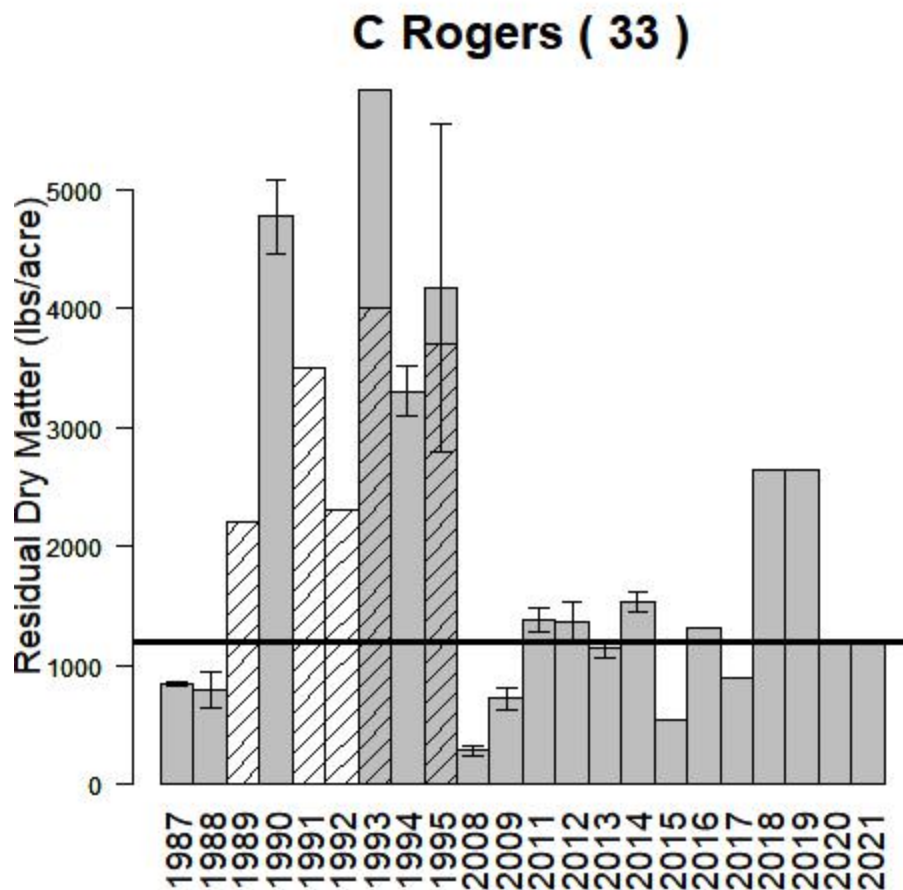


Figure 33: C. Rogers Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁴⁵. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁴⁶. **This year's RDM value was 1187 lbs/acre.**

*In 2021, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported in Figure 33.

⁴⁵ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁴⁶ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

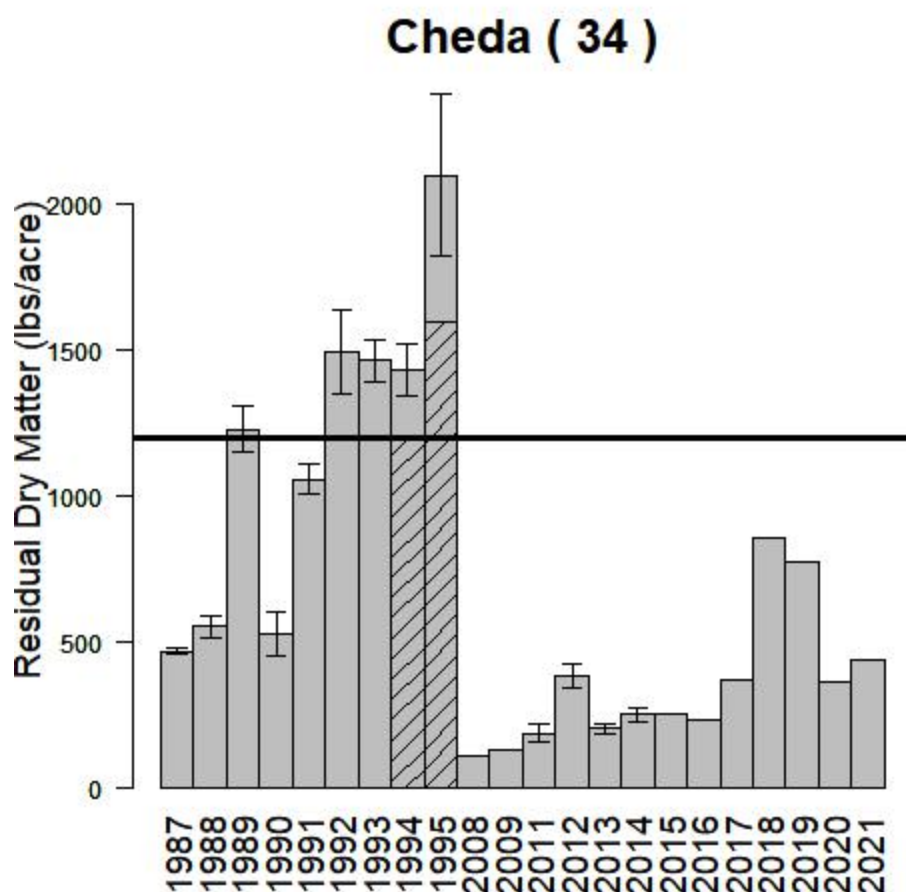


Figure 34: Cheda Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁴⁷. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁴⁸. **This year's RDM value was 440 lbs/acre.**

Note: Based on visual zone mapping, this transect has not been representative of RDM on other areas of Cheda Ranch. In 2018, a new test transect was established to better represent RDM conditions on the Cheda ranch based on the “key area” concept. Figure 54 shows the new transect RDM.

⁴⁷ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁴⁸ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

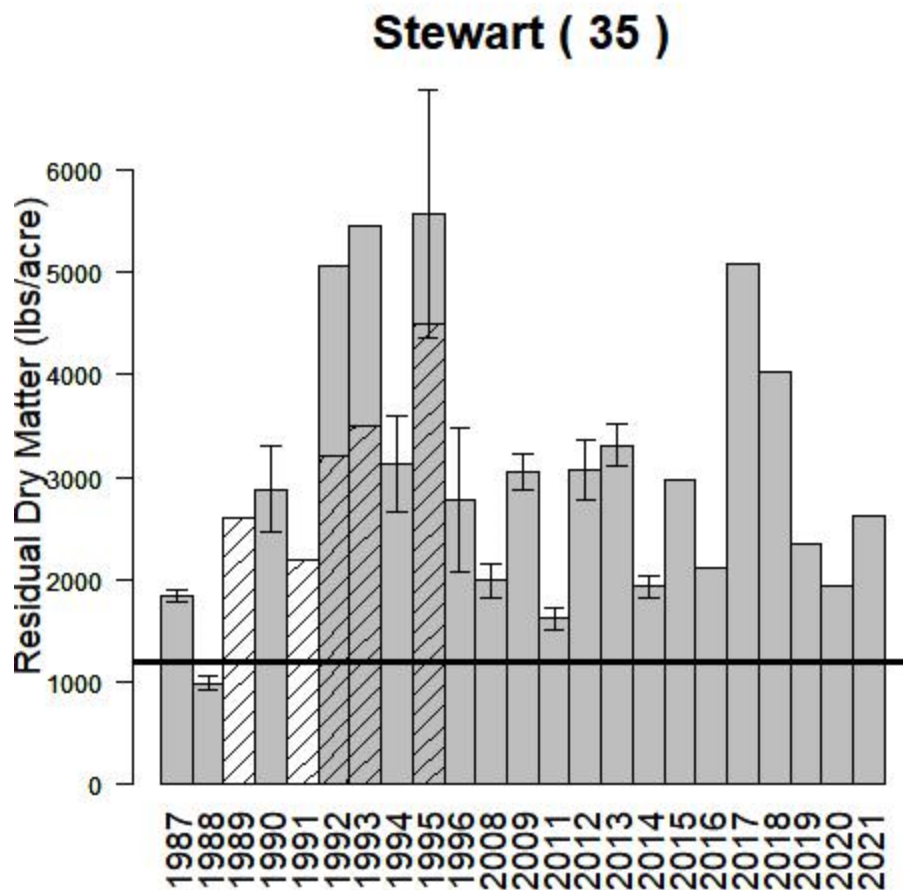


Figure 35: Stewart Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁴⁹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁵⁰. **This year's RDM value was 2620 lbs/acre.**

*In 2021, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported in Figure 35.

⁴⁹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁵⁰ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

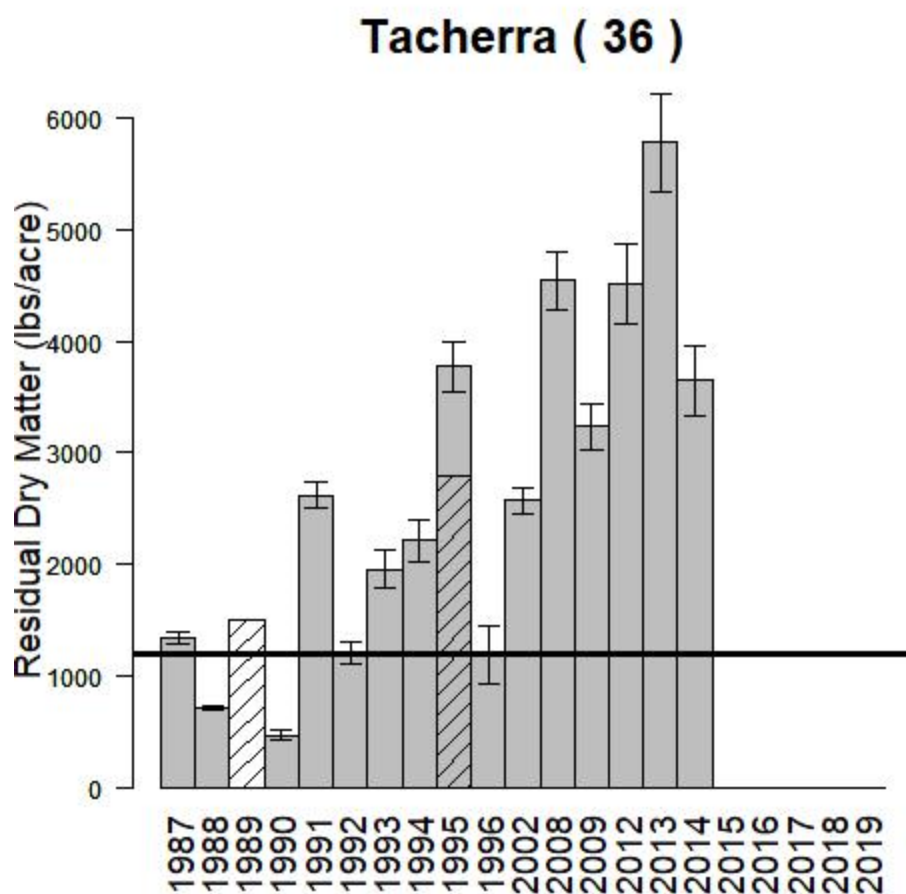


Figure 36: Tacherra (RDM plot 36) values 1987–201. Data from 1987–2014 was collected using methods outlined in NPS 1990. No data has been collected since 2014.

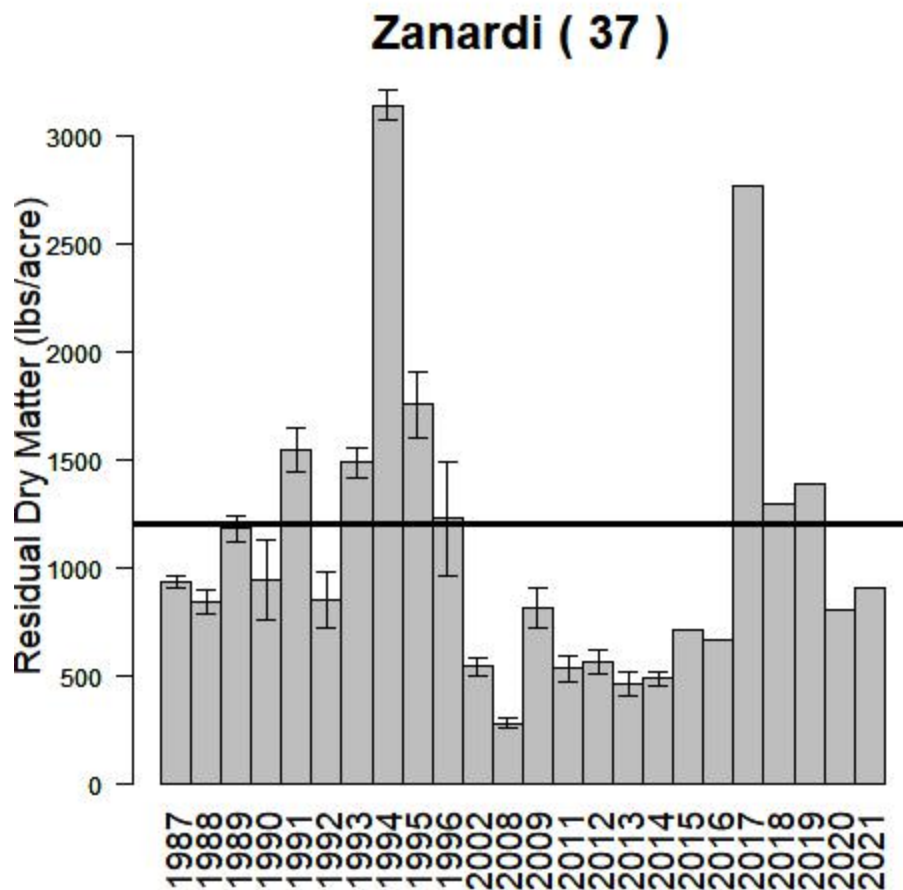


Figure 37: Zanardi Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁵¹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁵². **This year's RDM value was 907 lbs/acre.**

⁵¹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁵² Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

Commonweal (38)

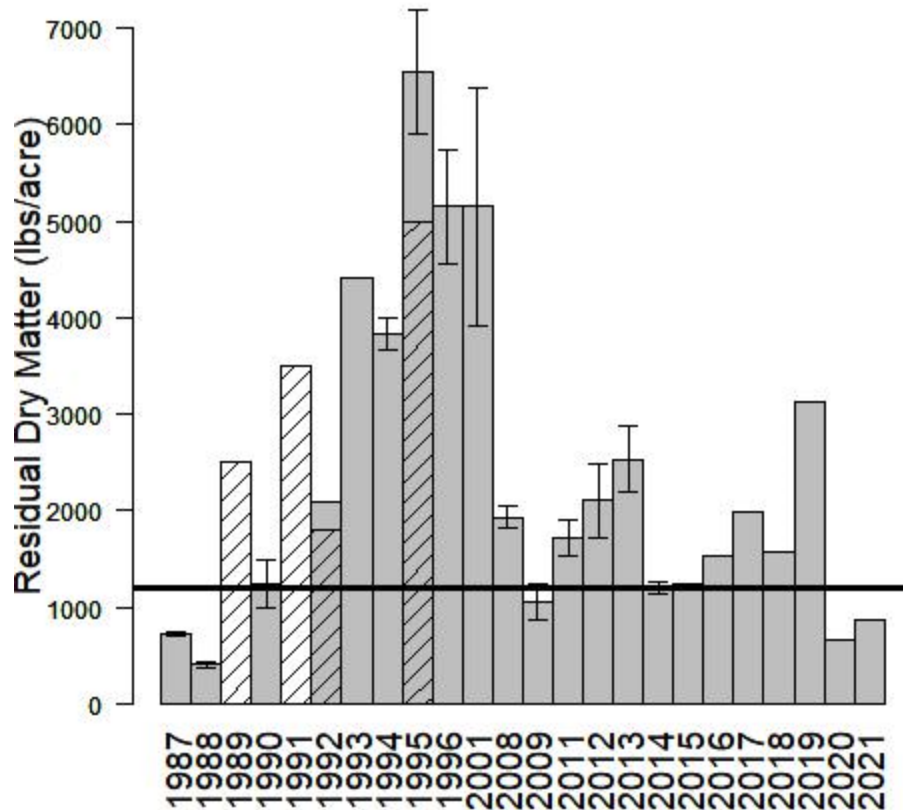


Figure 38: Commonweal North RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁵³. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁵⁴. **This year's RDM value was 880 lbs/acre.**

*In 2018-2021, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported in Figure 38.

⁵³ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁵⁴ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

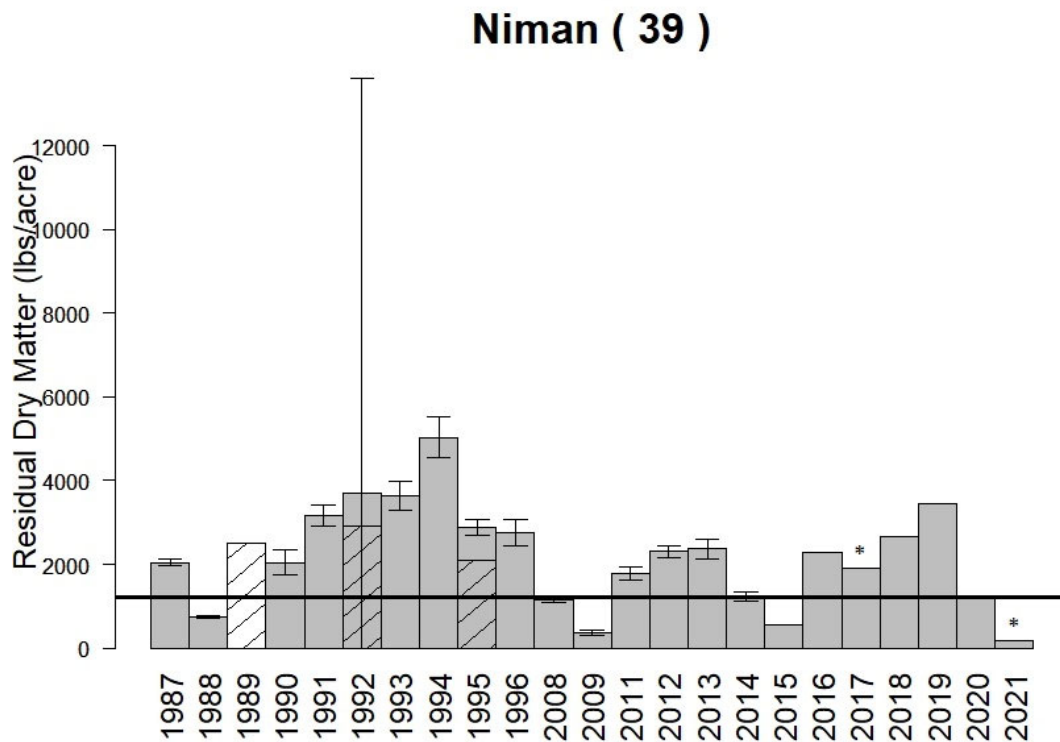


Figure 39: Niman Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁵⁵. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁵⁶. **This year's RDM value was 170 lbs/acre.**

* In 2019-2020, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported for 2019 in Figure 39. In 2017, 2018, and 2021, onion grass was estimated to be greater than 25% ground cover and removed from clipped samples to obtain the RDM result shown for 2017, 2018, and 2021 in Figure 39. Including onion grass in the 2021 result gives a total RDM of 907 lbs/acre. This is approximately 81% of the sample dry weight (737 lbs/acre).

⁵⁵ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁵⁶ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

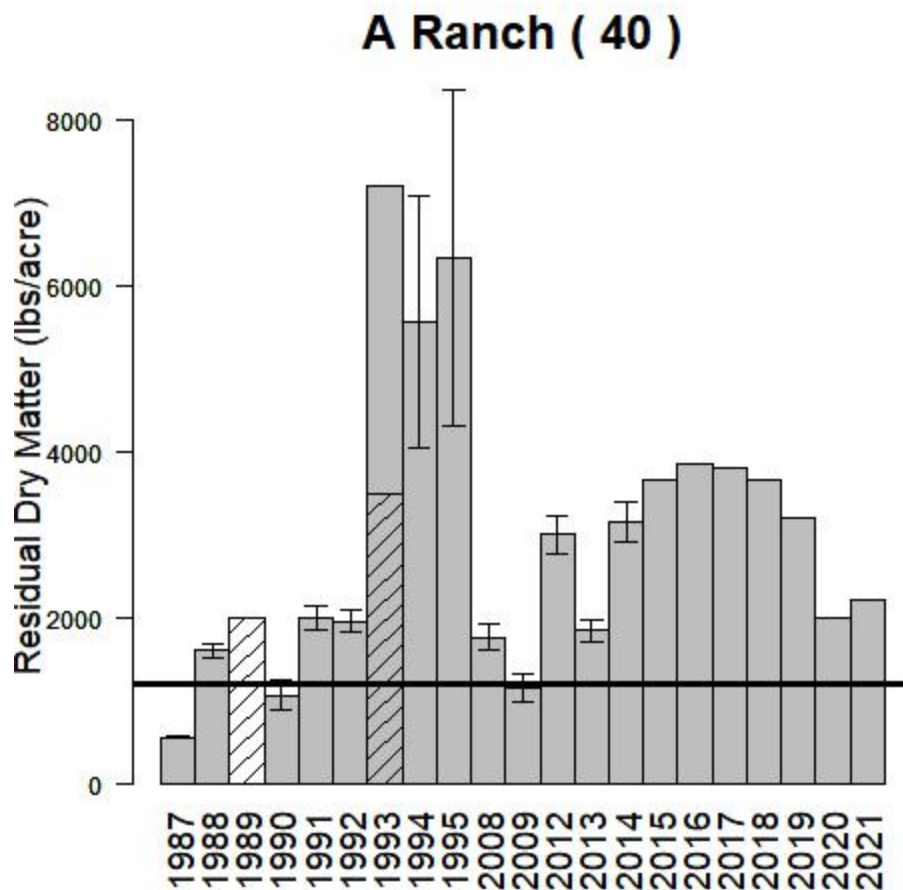


Figure 40: A Ranch (Transect 40) RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁵⁷. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁵⁸. **This year's RDM value was 2230 lbs/acre.**

⁵⁷ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁵⁸ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

E Ranch (41)

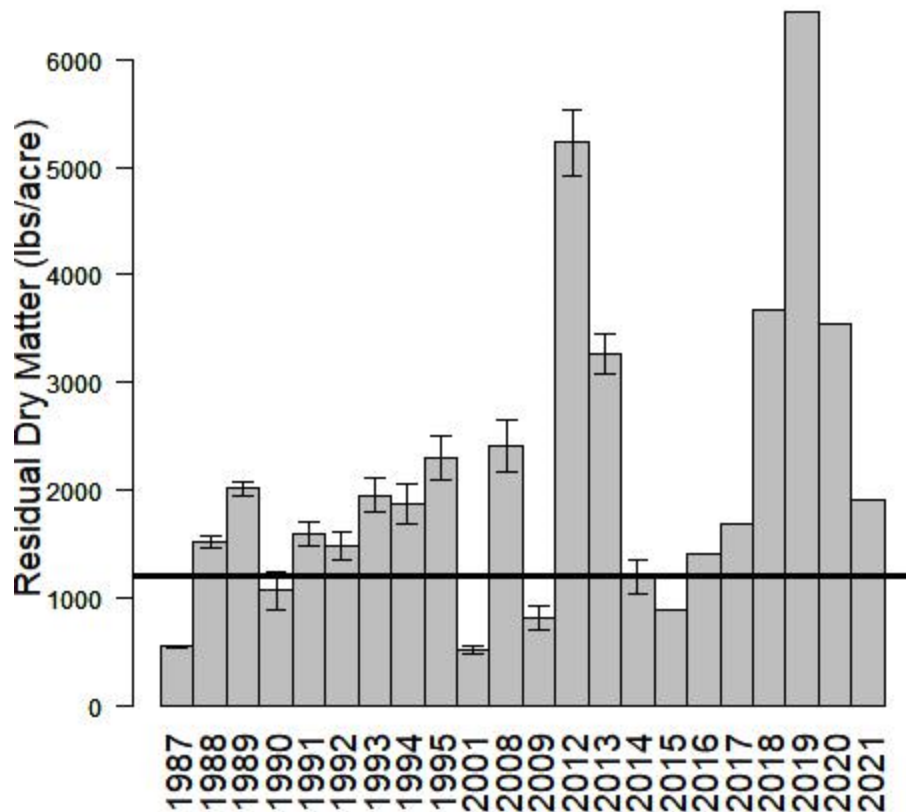


Figure 41: E Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁵⁹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁶⁰. **This year's RDM value was 1920 lbs/acre.**

⁵⁹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁶⁰ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

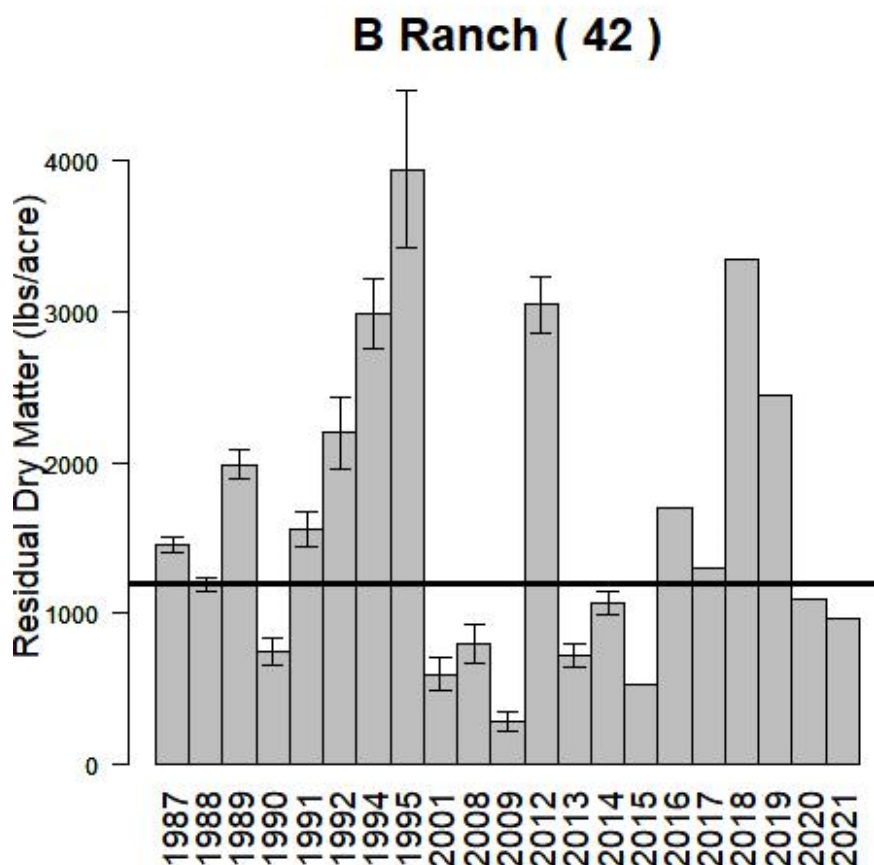


Figure 42: B Ranch RDM RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁶¹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁶². **This year's RDM value was 963 lbs/acre.**

⁶¹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁶² Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

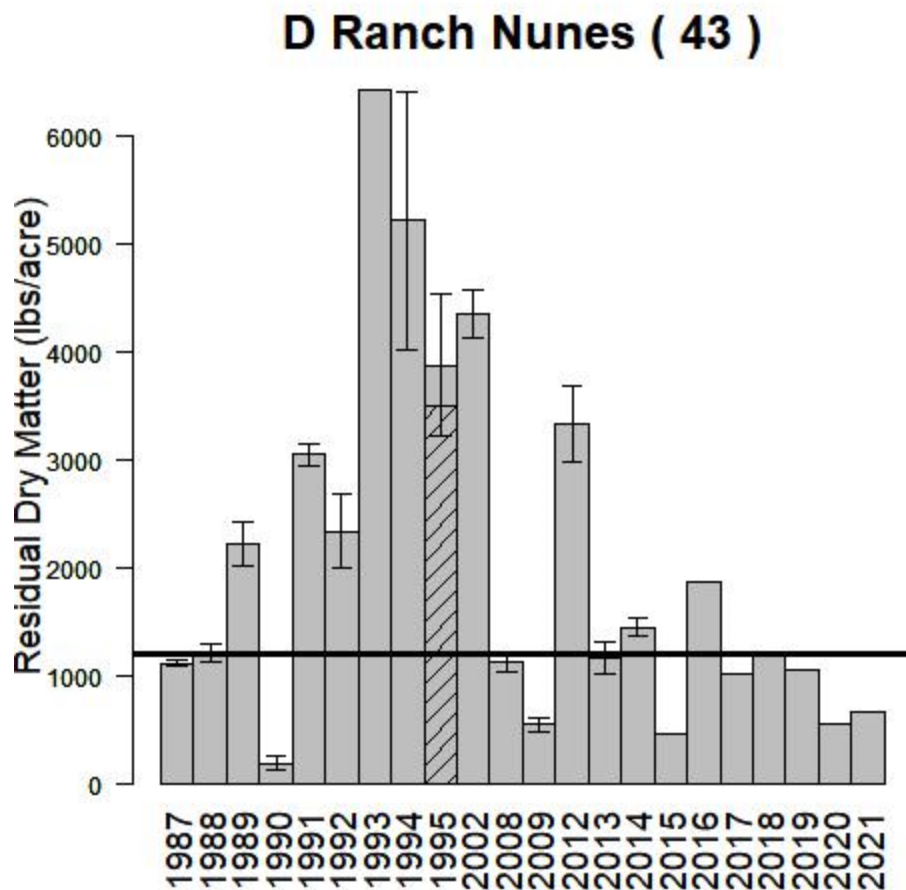


Figure 43: D Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁶³. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁶⁴. **This year's RDM value was 673 lbs/acre.**

⁶³ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁶⁴ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

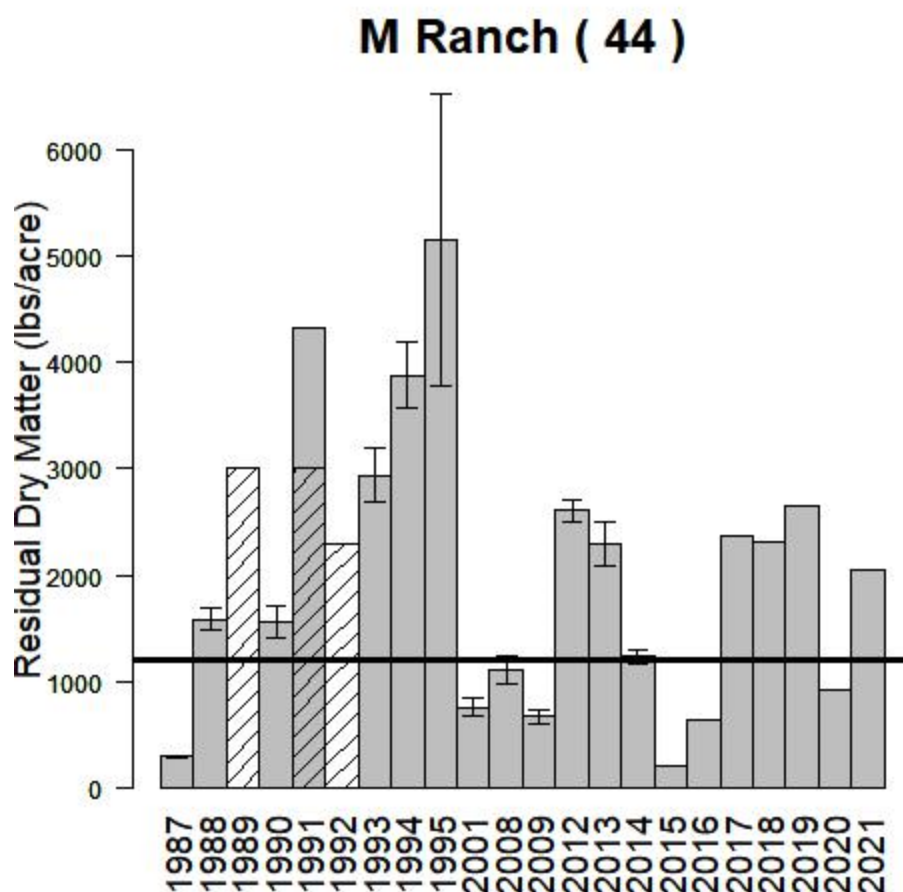


Figure 44: M Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁶⁵. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁶⁶. **This year's RDM value was 2043 lbs/acre.**

*In 2018-2021, onion grass (*Romulea rosea*) was detected at this site with visually estimated ground cover less than 25%. Onion grass was not removed from the dry weight reported in Figure 44.

⁶⁵ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁶⁶ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

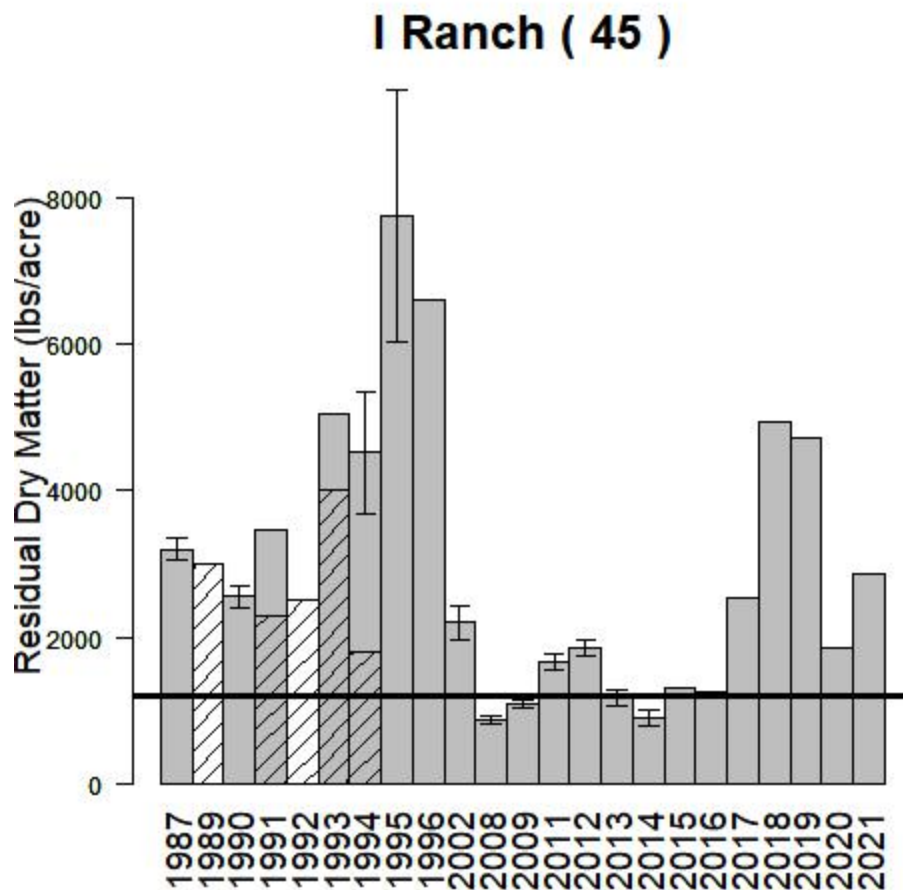


Figure 45: I Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁶⁷. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁶⁸. **This year’s RDM value was 2877 lbs/acre.**

⁶⁷ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁶⁸ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

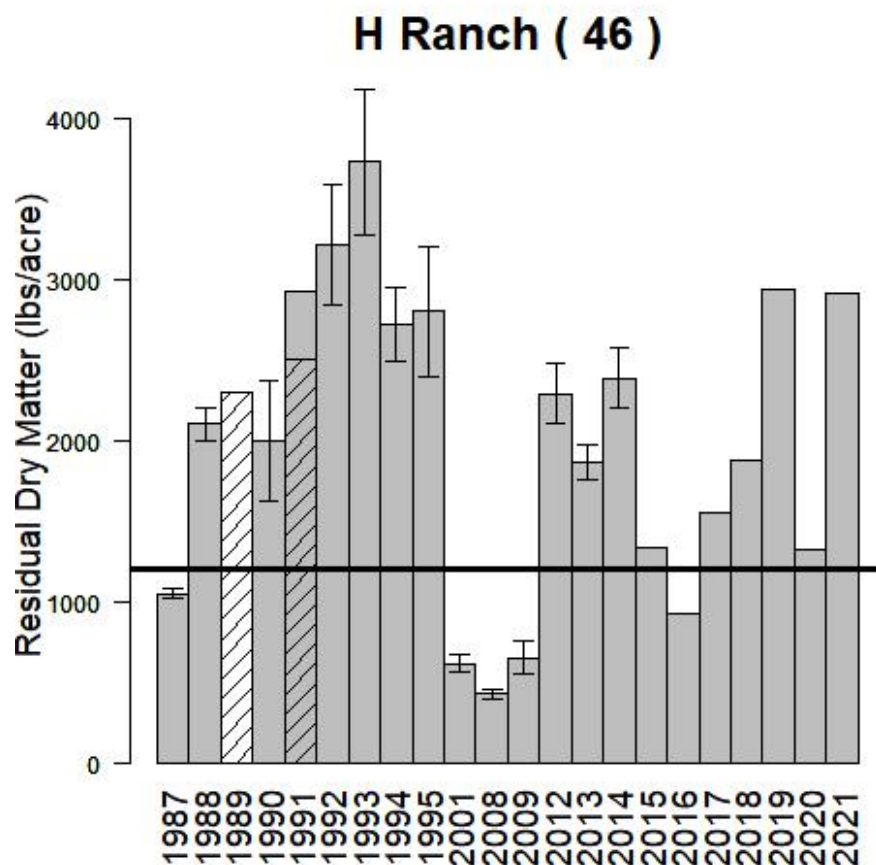


Figure 46: H Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁶⁹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁷⁰. **This year's RDM value was 2913 lbs/acre.**

⁶⁹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁷⁰ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

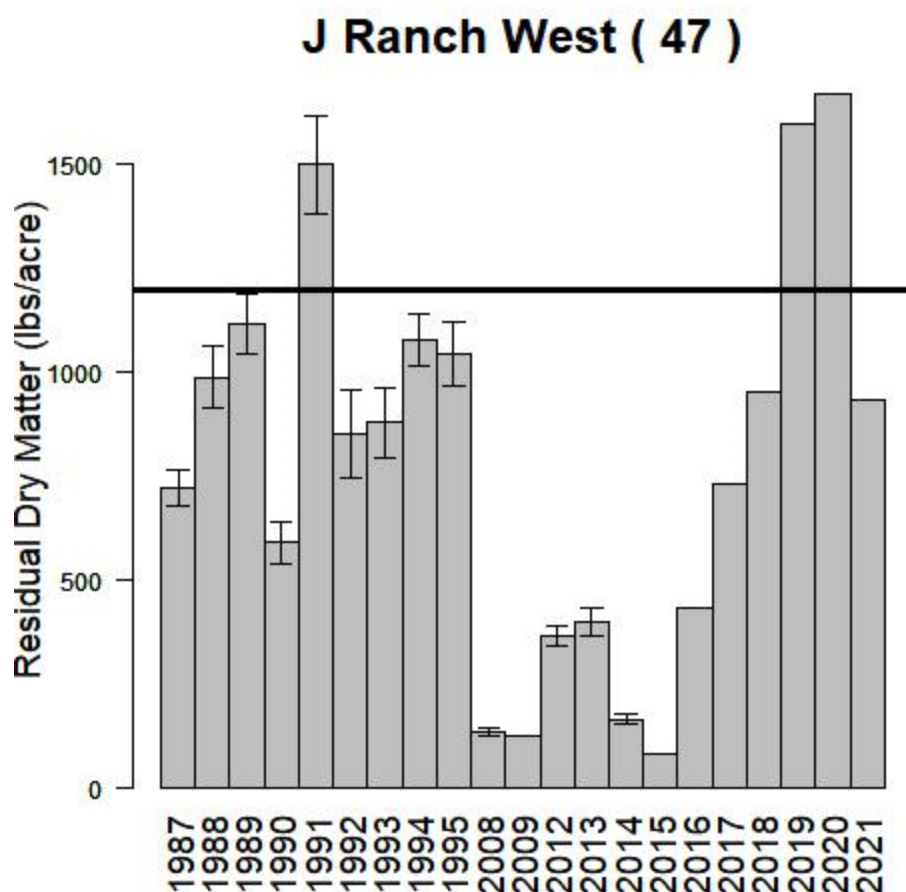


Figure 47: J Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁷¹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁷². **This year's RDM value was 933 lbs/acre.**

Note: Based on visual zone mapping, this transect is representative of a relatively small proportion of the mapped area of J Ranch and upper K Ranch.

⁷¹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁷² Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

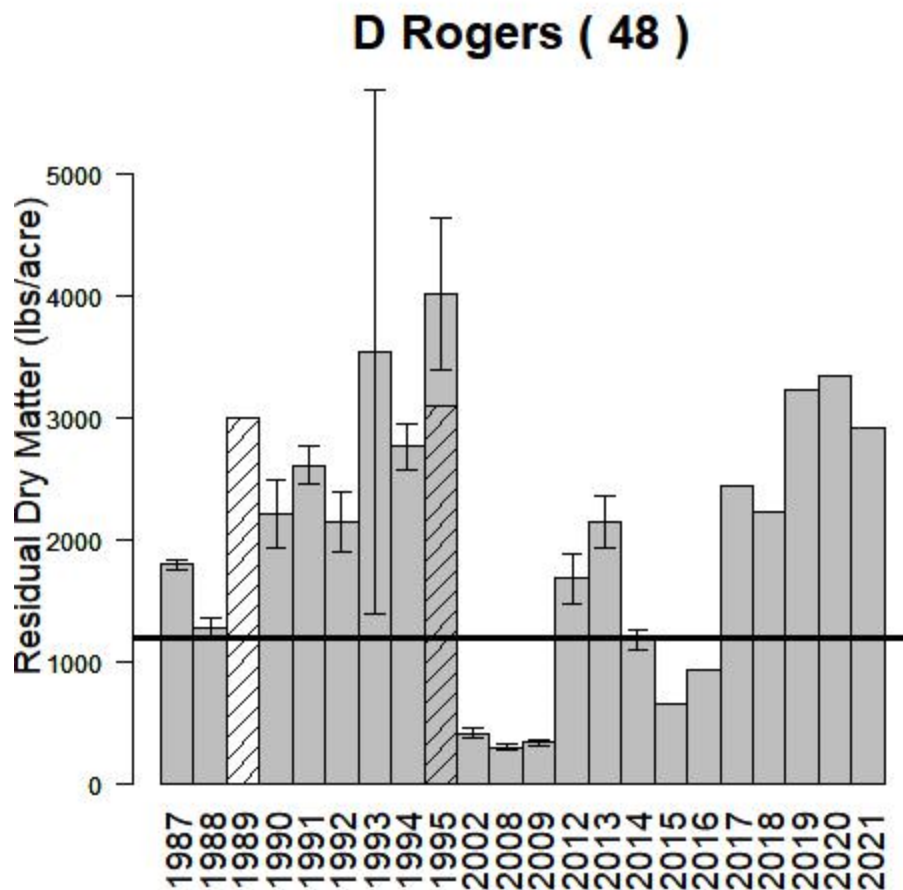


Figure 48: D. Rogers Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁷³. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁷⁴. **This year's RDM value was 2923 lbs/acre.**

⁷³ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁷⁴ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

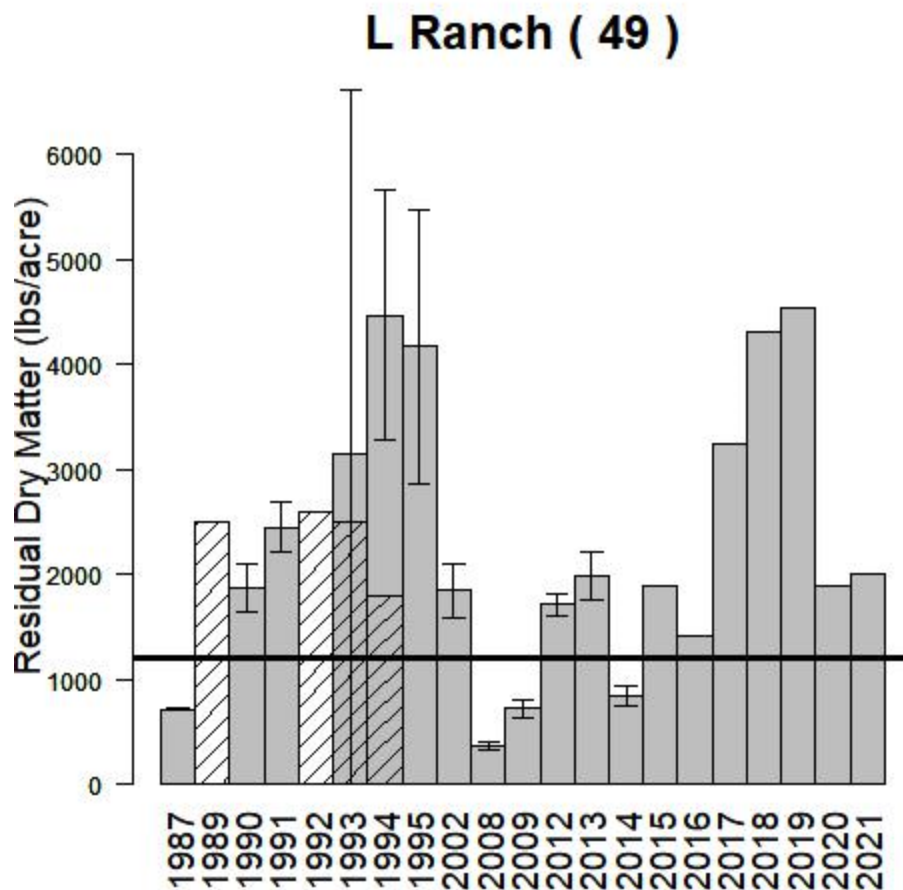


Figure 49: L Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁷⁵. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁷⁶. **This year's RDM value was 2010 lbs/acre.**

⁷⁵ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁷⁶ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

Genazzi (50)

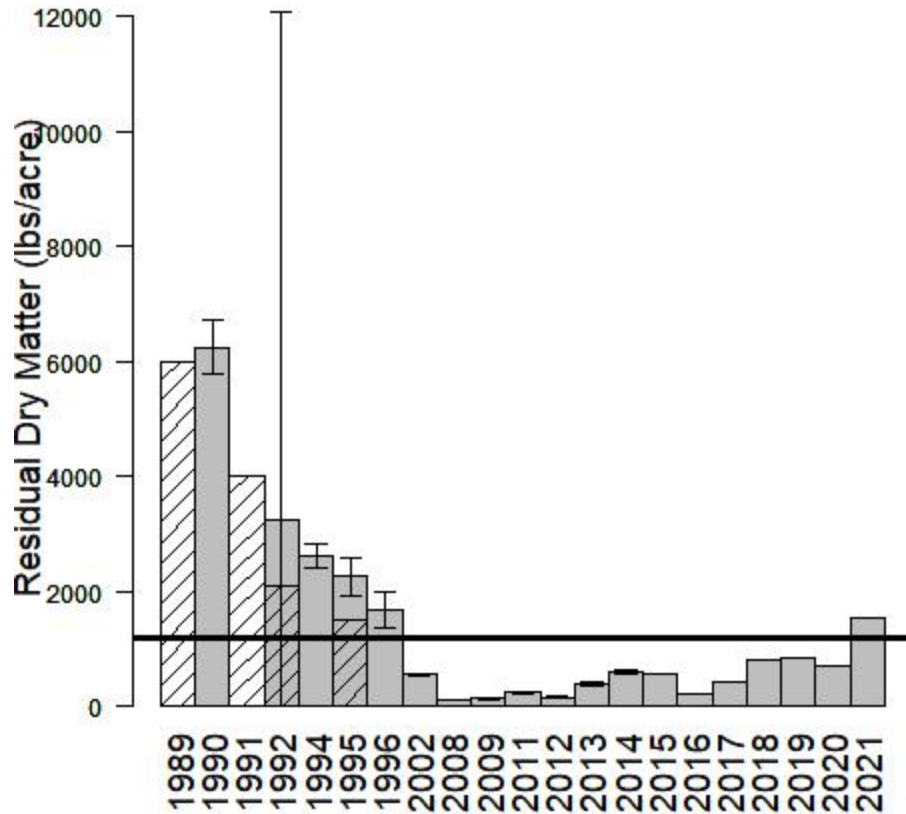


Figure 50: Genazzi Ranch RDM plot values 1989-present. Data from 1989-2014 was collected using methods outlined in NPS 1990⁷⁷. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁷⁸. **This year's RDM value was 1537 lbs/acre.**

⁷⁷ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁷⁸ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

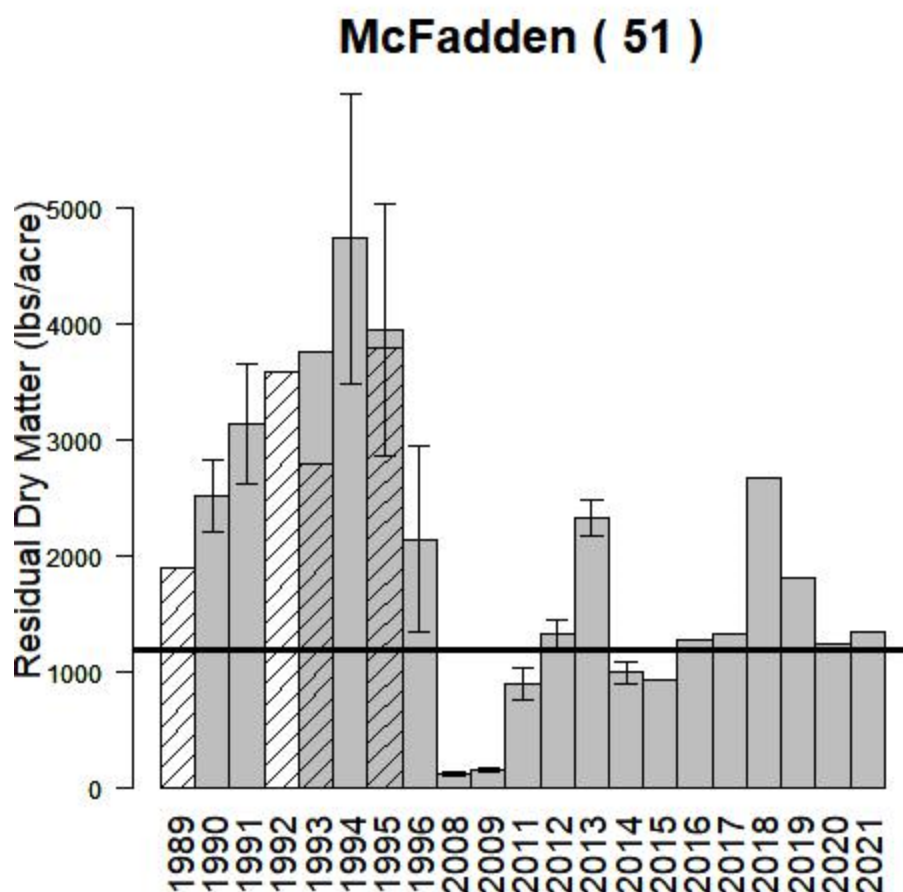


Figure 51: McFadden Ranch RDM plot values 1987-present. Data from 1987-2014 was collected using methods outlined in NPS 1990⁷⁹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁸⁰. **This year's RDM value was 1350 lbs/acre.**

⁷⁹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁸⁰ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

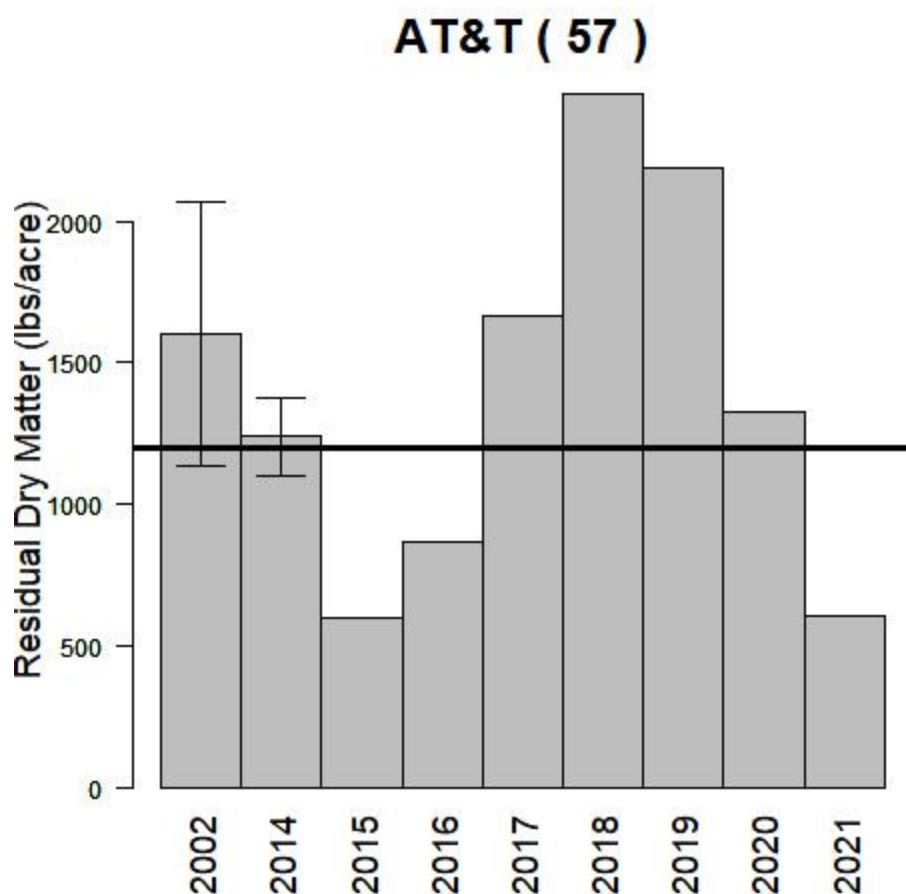


Figure 52: ATT Ranch RDM plot values 2002-present. Data from 2002-2014 was collected using methods outlined in NPS 1990⁸¹. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁸². **This year's RDM value was 610 lbs/acre.**

⁸¹ National Park Service. 1990. Range Monitoring Handbook. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

⁸² Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

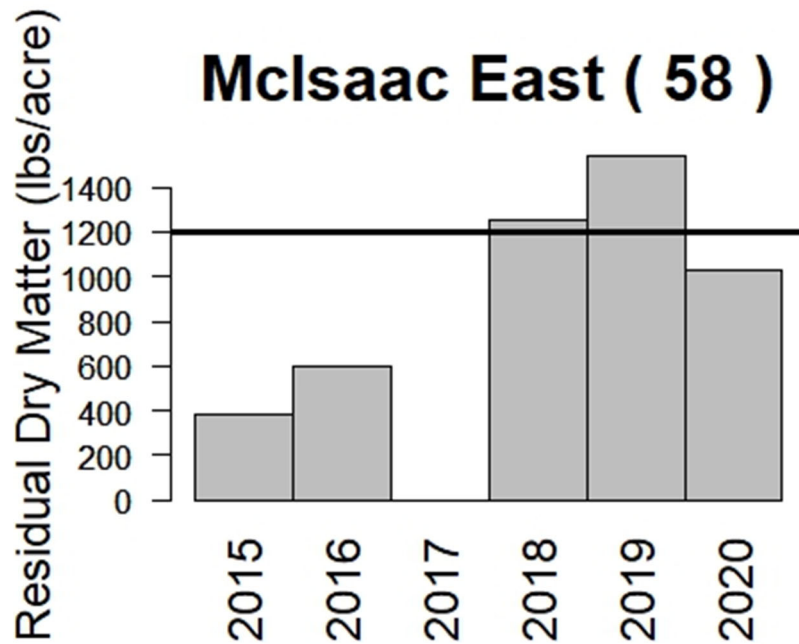


Figure 53: Mclsaac East RDM plot values 2015-present. This test plot was created in 2015 and was not sampled in 2017. Data from 2015-present was collected using methods outlined in Bartolome et al. 2015⁸³. **This year's RDM value was 993 lbs/acre.**

⁸³ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. 1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

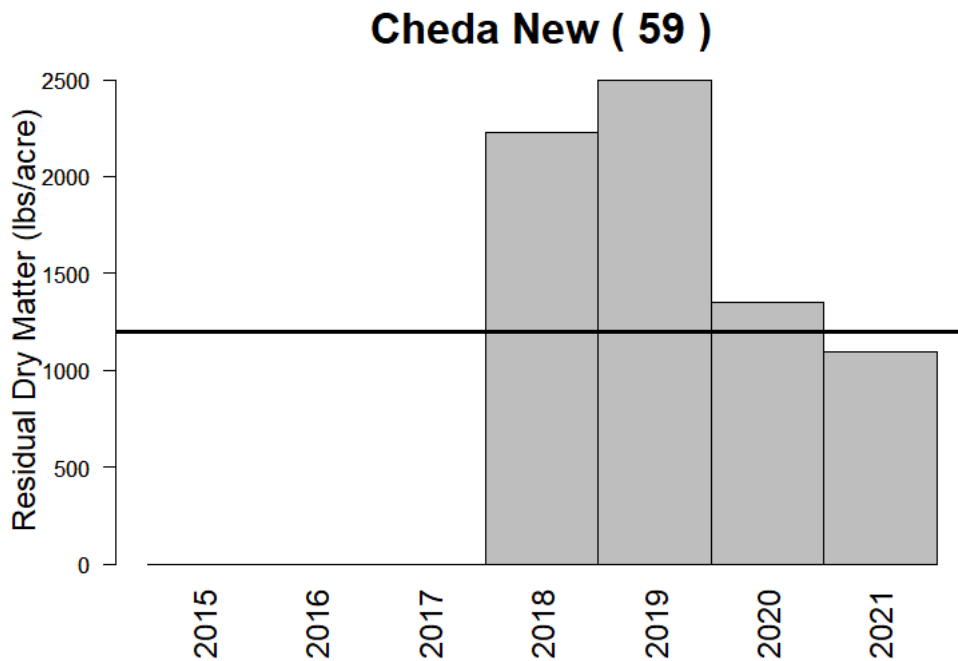


Figure 54: Cheda Ranch new RDM plot values 2018-present. Data was collected using methods outlined in Bartolome et al. 2015⁸⁴. **This year's RDM value was 1097 lbs/acre.**

Sources Cited:

¹ National Park Service. 1990. *Range Monitoring Handbook*. Point Reyes National Seashore. U.S. Department of Interior. December 1990. 48pp.

² Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. *1987–2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area*. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.

⁸⁴ Bartolome, J., M. Hammond, P. Hopkinson, and F. Ratcliff. 2015. *1987-2014 Residual Dry Matter Analysis Report and Updated Rangeland Monitoring Guidelines for Livestock Grazed Grasslands within Point Reyes National Seashore and Golden Gate National Recreation Area*. Point Reyes National Seashore (PORE) Project Phase 1: CESU Task Agreement #P11AC91045. August 30, 2015. 27pp with appendices.