

EGU21-16331

<https://doi.org/10.5194/egusphere-egu21-16331>

EGU General Assembly 2021

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## Wet and dry plastic deposition in the western United States

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Eleven billion tons of plastic are projected to accumulate in the environment by 2025. Because plastics are persistent, they fragment into pieces that are susceptible to wind entrainment. Using high resolution spatial and temporal data we tested whether plastics deposited wet versus dry have unique atmospheric life histories. Further, we report on the rates and sources of deposition to remote U.S. conservation areas. We show that urban centers and resuspension from soils or water are important sources for wet deposition. In contrast, plastics deposited dry were smaller in size and rates were related to indices that suggest longer range or global transport. Deposition rates averaged 132 plastics m<sup>-2</sup> day<sup>-1</sup> amounting to > 1000 tons of plastic deposition to western U.S. protected lands annually.