Fig. S1 Response of nematode functional groups to changes in growing-season precipitation across three ecosystem types. Color-coded trend lines represent local effects of received growing-season precipitation ($n = 80$) predicted by mixed effects models. Shaded regions indicate 95% confidence limits. Points represent mean abundance of nematodes per precipitation level ($n = 8$), and error bars represent standard error of the mean. Total abundance of nematodes: $P_{Arid} = 0.4189$, $r^2_{Arid} = 0.36\%$, $P_{Semiarid} = 0.6180$, $r^2_{Semiarid} = 16.03\%$, $P_{Mesic} = 0.0009$, $r^2_{Mesic} = 95.1\%$. Bacterivores: $P_{Arid} = 0.6309$, $r^2_{Arid} = 0.21\%$, $P_{Semiarid} = 0.8538$, $r^2_{Semiarid} = 24.94\%$, $P_{Mesic} = 0.0422$, $r^2_{Mesic} = 97.2\%$. Fungivores: $P_{Arid} = 0.1619$, $r^2_{Arid} = 3.90\%$, $P_{Semiarid} = 0.6447$, $r^2_{Semiarid} = 0.19\%$, $P_{Mesic} = 0.0077$, $r^2_{Mesic} = 95.96\%$. Root feeders $P_{Arid} = 0.9384$, $r^2_{Arid} = 9.87\%$, $P_{Semiarid} = 0.1692$, $r^2_{Semiarid} = 2.21\%$, $P_{Mesic} = 0.0328$, $r^2_{Mesic} = 95.48\%$. Omnivores: $P_{Arid} = 0.6915$, $r^2_{Arid} = 9.87\%$, $P_{Semiarid} = 0.9656$,

$r^2_{\text{Semiarid}} = 8.41\%$, $P_{\text{Mesic}} = 0.0183$, $r^2_{\text{Mesic}} = 7.37\%$. Predators: $P_{\text{Semiarid}} = 0.6362$, $r^2_{\text{Semiarid}} = 0.55\%$, $P_{\text{Mesic}} = 0.0657$, $r^2_{\text{Mesic}} = 93.78\%$.