

## USING NEMATODES TO ASSESS THE RESTORATION STATUS OF BRINE-IMPACTED SOILS

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Nematodes are commonly used as bioindicator organisms to assess soil health. They are ubiquitous in soil, sensitive to environmental changes, and can be analyzed easily and inexpensively. In order for nematode community structure to be assessed the nematodes are separated into groups based on trophic level and colonizer-persister (c-p) class. We used differences between trophic groups, c-p classes, and maturity indices to compare the recovery of nematode communities at several sites impacted by produced water brine in the Tallgrass Prairie Preserve in Oklahoma. The study sites were in various stages of remediation, recovery, and revegetation. Nematode numbers and community structure were seen to correlate with other ecological indicators including soil microbiology, soil chemistry, aboveground biomass and plant species diversity. However, nematode community attributes are less costly and less labor intensive to obtain than more conventional indicators. Taking nematode data obtained from land grant universities and formatting for communication to the regulatory community will be illustrated.

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