



## ROADSIDES AS NOVEL ECOSYSTEMS

**SPEAKER:** Kris Gade, Ph.D., AZ Dept. of Transportation

**DATE:** Wednesday, February 21st

**TIME:** 3:00 - 4:00 pm

**LOCATION:** ENR2 S210 & [Zoom](#)

### ABSTRACT:

Roads are an integral part of human society for efficient transportation of people and goods and form a network affecting landscapes worldwide. The presence of a road results in habitat fragmentation and the introduction of noise, light, and pollutants. Inputs of water and nitrogen and frequent disturbance create roadside conditions that can be quite different from adjacent habitat. Road ecology typically focuses on identifying and mitigating these effects.



However, roadsides comprise millions of acres - we should also consider ecosystem benefits that occur in these areas. This presentation will describe factors that contribute to novel roadside ecosystems and how implementing integrated vegetation management practices can lead to conservation opportunities. In particular, I will discuss intentional vegetation management practices to support habitat for monarch butterflies and other pollinators through seeding practices and timing of mowing. I will also introduce a habitat suitability model for ten milkweed species that the Arizona Department of Transportation is jointly developing with the Arizona Game and Fish Department to help guide our conservation efforts. These types of conservation practices (informed by research through the Transportation Research Board under the National Academies of Science, Engineering and Medicine and the Federal Highway Administration) are being implemented across the US and quantified as a result of a nationwide conservation agreement for monarch butterflies on transportation and energy lands.