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Sarah Iams*, siams@seas.harvard.edu, and **Punit Gandhi** and **Mary Silber**. *Water Transport Shapes Banded Vegetation Patterns in Dryland Ecosystems*.

In dryland ecosystems, water can be thought of as a limiting resource. In an apparent response to water scarcity, two phase mosaics of vegetation and bare ground often develop in these regions. In some locations, the mosaic forms as bands or arcs of vegetation tens of meters wide and up to a kilometer in length, separated by bare ground. Observations suggest that topography may influence the bands. In conceptual partial differential equation models of the system, inhomogeneity of the surface can lead to bands and band arcing as well as to predictions about when bands, bare soil or uniform vegetation, might appear. (Received September 25, 2018)