Using a redox sensitive dye, methylene blue, to visualize radial oxygen loss (ROS) in wetland plants.

Wetland plants, or plants that grow in wet environments, have unique adaptations that allow their growth in wet environments. One of those adaptations is the presence of aerenchyma tissue. Aerenchyma tissue functions as a conduit from aerial parts of the plants to the roots, bringing oxygen from the leaves above the water to the roots below the water. As these plants transport oxygen from the shoots to the roots, some of that oxygen is lost from the roots into the surrounding media through a process called radial oxygen loss. Visualization and applications of this information will be discussed.