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Birds, Pests, and Habitat: Case Studies of Bird-Provided Ecosystem Services from Jamaica, Kenya, and California



Global crop demand is projected to increase by 70 percent by 2050, putting increased stress on the protection of natural habitats and conservation of global biodiversity. Ecosystem services, such as pest control and pollination, are critical benefits of biodiversity important for agricultural production. Predators, including birds, can provide important pest control in agroecosystems, boosting crop yield and offsetting the need for expensive inputs such as pesticides. Birds are mobile and responsive to habitat conditions, which prompts the need to understand how local habitat and landscape characteristics affect the delivery of ecosystem services. This talk will review how my students and I have studied bird-delivered insect pest control in coffee farms in Jamaica and Kenya, and rodent pest control in winegrape vineyards of California. Our aim is to reveal how farmers can use local and surrounding habitats to achieve win-win scenarios by advancing both the provisioning of economically valuable pest control and the conservation of native birds.



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