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**6. Title of Presentation:** You are where you eat: Linkingferal swinemovement to resource use within and across pig populations

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**9. Abstract Body:** Understanding feral swine resource use is critical for assessing the risk feral swine pose to agriculture and their propensity to facilitate disease transmission. Resource use is intrinsically tied to an animal’s movement and thus, by identifying factors that drive animal movement on a landscape, we can make predictions regarding resource use. In this study, we use telemetry data consisting of 1.7 million GPS fixes from 500 pigs spanning 13 states and one Canadian province to answer the following question: How does resource availability affect feral swine movement and how do these effects vary through time? To answer this question, we are currently using dynamic movement models to understand how resource-based covariates such as crop availability, distance to water, forest cover, primary productivity, and human impact affect pig movement at the individual- and population-level. Moreover, we are exploring how population-level factors such as ecoregion, temperature, pig density, and population genetics interact with pig movement to change resource use between populations. Preliminary findings show that within a population, individuals display consistent directional effects in response to covariates such as forest cover and distance from agriculture, with individuals tending to move slower through forested habitat than non-forested habitat and tending to move in the direction of crop fields. However, the effects of these resources on pig movement vary over the course of the day and across seasons, but in a manner that is generally consistent across individual pigs. By linking pig movement to temporally-varying resource use, these models can be leveraged to make temporal and spatial predictions of how pigs are using a landscape. This can ultimately improve predictions of where and when feral swine will pose a risk to agriculture and disease transmission.\*This work is in progress

**10. Presentation Type**: Oral presentation