Dispersal and Behavior Patterns between Dispersing Wolves and Pack Wolves in Northern Minnesota

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Today there are at least 1,655 wolves in the northern Rockies (Frey, 2017). My question was: What effect do the Gray Wolf (Canis Lupus) characteristics (age, sex) and human (roads, railroads, towns) and natural disturbance (Lakes, Rivers, typography, Seasons) have on wolf dispersal patterns and behavior in Northeastern Minnesota. My Hypothesis was: H1- If the behavior between the Dispersing wolves and Pack wolves are compared, the Dispersing wolves will be less affected by human disturbances than the Pack wolves. H2- If the characteristics (age, sex, size) of the dispersing wolves are examined along with the season of the year, then the age and sex of the wolf, along with the time of year that the wolf leaves its natal pack, will affect when and how long a dispersing wolf will be without a pack. Wolf location data was uploaded into ArcGIS Online, ArcGIS Pro and QGIS. I then analyzed three Dispersing and three Pack Wolf movements, to find the behavior patterns of the wolves. After analyzing the maps I found that when Airport wolf is dispersing she is purposely trying to avoid human disturbances. Unlike Rogue One and 2609 who didn't seem to try and avoid humans. They would travel close to homes and towns. Also, when you look at The Airport_Female and Rogue One_Female they both dispersed as yearlings in the winter and only dispersed for about seven to eight months. 2609_Male dispersed as an adult in the spring and only dispersed for about four months.

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