

**** Behavioral Plasticity in Snowshoe Hare Predator Escape Decisions**

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Under climate change, wildlife species are facing new selective pressures that will force them to adapt through range shifts, phenotypic plasticity, or adaptive evolution. Previous research on behavioral plasticity in snowshoe hares (*Lepus americanus*) has shown limited evidence that hares can modify their behavior to decrease predation risk in response to camouflage mismatch brought on by decreased snow duration during the winter white molt period. However, snowshoe hares have shown innate capacity for plasticity in predator avoidance, for example reducing risk by shifting foraging behavior relative to cover availability and moonlight. We ask whether snowshoe hares exhibit behavioral plasticity in escape behavior in response to aerial versus ground predators. Because aerial predators use different attack tactics compared to terrestrial predators, we predict that hares will likewise respond with different escape behaviors. We simulate predation encounters using trained falconry hawks and hunting dogs to pursue radio-collared snowshoe hares to quantify hare decision-making under different types of predatory threat. We compare use of subterranean refugia, vegetative cover, and flight behavior after raptor chases, dog chases, and human approach. Preliminary findings suggest increased use of subterranean and subnivean refugia in response to avian predatory threat compared to human approach. Understanding the capacity for behavioral plasticity in snowshoe hare predation avoidance behavior allows us to better anticipate the species' ability to adapt in the face of increased predation risk under reduced snow conditions due to climate change.