

Is it Predators or Habitat?

By Larry Hyslop



Pete Coates, USGS Wildlife Biologist, talking to Elko residents

Why the drop in sage-grouse populations across the West, across Nevada and especially across Elko County? Is it the loss of essential habitat or is it predators, specifically ravens? According to Pete Coates, USGS Wildlife Biologist, the problem is both habitat and predators. One cannot be separated from the other.

Pete Coates presented this thought at his talk two weeks ago here in Elko, sponsored by the Northeastern Nevada Stewardship Group. Much of his talk centered on nesting success and chick survival. Hens successfully raising chicks need adequate nutrition and quality habitat.

Ravens are the number one predator of sage-grouse eggs and they actively search for sage-grouse nests. Yet nesting success also requires quality habitat surrounding the nest. Nests are generally built beneath a shrub, usually sagebrush. Pete's research on the Bi-state sage-grouse population and here in Elko County show greater nest success when the nest is built beneath good shrub cover, especially sagebrush, which helps hide the incubating hen from ravens both flying over and watching from an elevated perch. Abundant, tall, native grass and forbs around the protective sagebrush also helps shield the nest. Research has also shown less nesting success in an area of abundant cheatgrass.

The second most prevalent egg predator is the badger, but these mammals usually stumble upon nests and do not actively hunt for them. Thick vegetation around nests helps shield them from passing badgers.

Nesting success drops in response to the number of ravens in the area. It also drops for nests located closer to perch sites where ravens can search for movement signifying a nest. Ravens make use of power lines and towers much more than other raptors such as hawks. The problem is often a combination of less shrub cover in areas and more ravens.

Chick survival depends on good vegetative food sources. Brood rearing is more successful in areas of abundant perennial forbs. Healthy meadows are very important for these broods, especially meadow edges where hens and their broods can find food in the open meadow while remaining close to protective sagebrush. Brood rearing is less successful in areas with more annual forbs. Sage-grouse also avoid pinyon/juniper woodlands, especially larger groves where protective sagebrush is farther away.

The best chick survival rates are during years of abundant moisture. A wet year combined with good habitat can offer a huge boost to the bird population. However, habitat impacted by wildfires, even during a wet year, does not offer that boost.

Killing ravens will probably be a part of any plan to restore sage-grouse populations, but it is a very short-term solution. Maintaining quality vegetation for the bird is a central part of any plan.

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