Factors Influencing Nest Survival And Productivity Of Lewis's Woodpeckers Breeding In Aspen Riparia Woodlands[TWS]

Karen R. Newlon and Jay J. Rotella, Department of Ecology, Montana State University. Bozeman, MT 59717

Victoria A. Saab, USDA Forest Service, Rocky Mountain Research Station, Bozeman, MT 59717

We initiated a study in 2002 to determine factors influencing nest survival and productivity of Lewis's Woodpeckers (*Melanerpes lewis*) breeding in aspen riparian woodlands in south-central Idaho. Lewis's Woodpecker, a sporadically distributed but often locally abundant species, breeds primarily in burned pine and riparian forests throughout the western United States. Although information is available on reproductive success and productivity in burned pine and cottonwood habitats, importance of aspen riparian woodlands as breeding habitat has not been explored for this species. Whereas aspen woodlands are used to a lesser degree than other habitats, they provide valuable breeding habitat for this species throughout the Intermountain West. We determined nest fate, i.e., fledge or failure, for 76 nests monitored during the breeding seasons of 2002-2004. We constructed an a *priori* model list to assess covariate(s) that best explained nest survival. We modeled daily survival rate of nests as a function of several covariates including nest initiation date, nest age, year, weather, nest site characteristics, and a linear time trend using a generalized linear models approach. The model receiving the strongest support indicates nest survival decreased for nests initiating late in the season and increased with increasing minimum daily temperature. High overall nest survival (74%) and high nest productivity (2.3 fledglings/successful nest, $n = 59$ nests) suggested that aspen riparian woodlands may provide potential source habitat for Lewis's Woodpecker.