



Seminar Series: Spring 2020

HOW NEST SITE ENHANCEMENT INFLUENCES POLYGAMY AND NEST PARASITES OF THE CORDILLERAN FLYCATCHER (*EMPIDONAX OCCIDENTALIS*) IN SOUTHWESTERN COLORADO AND MT LEMMON, ARIZONA.

SPEAKER: Charles van Riper III
Professor & ST Research Ecologist-Emeritus
SNRE & USGS/SBSC

DATE: Wednesday, January 22, 2020

TIME: 3:00-4:00 pm

LOCATION: ENR2, S107

ABSTRACT: The Cordilleran Flycatcher (*Empidonax occidentalis*) is a neotropical migrant passerine bird species found in riparian zones throughout the mountainous regions of the western US. The bird is largely a monogamous species that nests in sheltered open cavities along riparian corridors, and suitable nesting locations can be limiting with many reported nests from human-made structures. To test the hypothesis of how limited nesting sites can influence polygamy, we conducted an experimental study in southwestern Colorado supplying nesting platforms in a grid array. We found that Cordilleran Flycatchers readily took to platforms and that productivity from birds nesting on platforms was higher than in nests from natural sites. We also found that in years of superabundant prey resources, core males in our study area became polygamous, while in normal and low prey years they were monogamous. Productivity of polygamous pairs was not significantly higher than monogamous birds. From 2012-14 Cordilleran Flycatcher total reproductive success increased in our study area, largely from young produced on platforms. However, in 2015 we recorded the first known case of nestling death caused by *Protocalliphora parorum* blow fly larvae, and this impact escalated each year through the end of our study in 2018. We conclude that augmentation of nesting substrates for the Cordilleran Flycatcher is an important potential tool for restoration efforts throughout the west, but that it is also important to understand how human assisted wildlife enhancement activities can have potential consequences in changing host/parasite interactions.

