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WILLOW FLYCATCHER NEST REUSE IN ARIZONA

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Abstract.—Nest reuse, here defined as within-year laying of a second clutch in an unmodified nest by the same female, is rare to unknown for most non-colonial, open-nesting passerines and has not been reported for Willow Flycatcher (*Empidonax traillii*). Therefore, we report two instances of nest reuse, both by the same female, in a small population of banded Willow Flycatchers in Arizona. One of 12 nests was reused in 1996 and one of 18 nests in 1997. Because of the possibility of reuse, investigators monitoring Willow Flycatcher nests should consider re-examining previously used nests if a new nest can not be found for a female which continues to exhibit nesting behavior.

REUTILIZACIÓN DE NIDO POR PARTE DE UN INDIVIDUO DE *EMPIDONAX TRAILLII* EN ARIZONA

Sinopsis.—La reutilización de nidos, definida en este trabajo como la producción de una segunda camada por la misma hembra, en el mismo nido durante el mismo año reproductivo, es una conducta rara o inexistente en la gran mayoría de los paserinos, no coloniales y que construyen nidos abiertos. Esta conducta no ha sido informada en *Empidonax traillii*. En este trabajo informamos dos casos de reutilización de nido, por parte de la misma hembra, en una población de estas aves que se estudió en Arizona. Uno de 12 nidos fue reutilizado en el 1996 y uno de 18 en el 1997.

Nest reuse is the laying of a clutch of eggs in a previously used nest of the same or another species and is not uncommon among raptors, owls, woodpeckers, and other non-passerines. Within-year nest reuse, or the laying of a second clutch in an unmodified nest (no egg burial under new material) by the same female, is rare or unknown for most species of non-colonial, open-nesting passerines (Curson et al. 1996, Bergin 1997). Exceptions include passerines nesting in cavities or burrows or those making mud nests such as swallows (e.g., Shields 1984, Barclay 1988). Nest reuse has not been reported for most *Empidonax* flycatchers (Bent 1942; Sedgwick 1993, 1994) with the exception of Western Flycatchers (*E. difficilis*), which regularly exhibit between-year nest reuse (usually with some modification; Bent 1942) and Least Flycatchers (*E. minimus*) which rarely exhibit within-year nest reuse (Briskie and Sealy 1988). The purpose of this paper is to report two instances of within-year nest reuse in a small, banded population of Southwestern Willow Flycatchers (*E. traillii extimus*) in Arizona.

We examined Willow Flycatcher nests at approximately 3–5 d intervals from May–August 1996–1997 in riparian habitat dominated by Goodding

willow (*Salix gooddingii*), tamarisk (*Tamarix ramosissima*), and Fremont cottonwood (*Populus fremontii*). The study site was located along the Verde River at Camp Verde (elev. 1125 m), central Arizona (34°37′N, 111°45′W). A mirror pole and/or ladder were used to help determine nest contents. Nest visits were designed to reduce potential human disturbance and subsequent risk of nest abandonment by timing visits with female flights from nests, minimizing visit length, and avoiding leaving distinct trails. Seven and 13 adults were banded with unique color combinations in 1996 and 1997, respectively.

HKY discovered a flycatcher nest in tamarisk on 4 Jun. 1996 in which a color-banded female (R-W/O) laid three eggs by 11 June in the territory of a color-banded male (B/O). All eggs hatched on or about 24 June, and two of these young fledged on 5 July (one nestling perished for unknown reasons). Female R-W/O continued to frequent the vicinity through mid-July, but with a different color-banded male (G/O). This prompted us to reexamine her old, unmodified nest on 25 July; the nest contained one flycatcher egg which later hatched on 1 August. The female was repeatedly observed attending the nest during this second nesting effort. The nestling was found dead in the apparently abandoned nest on 6 August. Extrapolating from the hatch date, we estimated the egg constituting the second clutch was laid on or about 20 July (approximately 15 d after fledging the first clutch).

Male G/O returned to the same territory in May 1997 and initiated a polygynous pairing with female R-W/O and a second color-banded female (Y/O), both of whom had concurrently active nests in his territory by early June. The nest attended by female R-W/O contained one flycatcher egg on 9 June. This nest was examined again on 13 June, when the egg (and any subsequent eggs) was missing due to probable predation (nest empty and intact). Female R-W/O remained active in the area after this time, but apparently without building a new nest. Therefore, we re-examined the old, unmodified nest in which her first clutch had been laid and discovered three flycatcher eggs on 17 June. These eggs hatched on about 30 June, and one nestling successfully fledged about 10 July. Female R-W/O was actively attending the nest during the second nesting effort. Extrapolating from the assumed hatch date, we estimated the second clutch was laid 3–7 d after loss of the first clutch.

Female R-W/O exhibited within-year nest reuse in the same territory occupied by male G/O in 1996 and 1997. This pair was part of an isolated nesting population (≥100 km from nearest known population; Sferra et al. 1997) of Southwestern Willow Flycatchers consisting of an estimated minimum of 12 and 20 adults in 1996 and 1997, respectively. Known nest reuse occurred in one of 12 flycatcher nests found in 1996 and one of 18 nests in 1997. Recurring, within-year nest reuse by an individual female in a small, isolated nesting population does not necessarily imply this is typical behavior across the species' range. Only three of 1168 Willow Flycatcher nests monitored from 1988–1997 in southeastern Oregon exhibited within-year nest reuse (J. A. Sedgwick, pers. comm.). However, be-

cause of the possibility of nest reuse and the need to determine its extent, investigators monitoring nests of this species should consider re-examining previously used nests if a new nest can not be found for a female which continues to exhibit nesting behavior.

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