

**ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM**

**Animal Abstract**

ABPAE33043

**Element**

**Code:**

**Data**

**Sensitivity:** Yes

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Empidonax traillii extimus*

**COMMON NAME:** Southwestern willow flycatcher; Traill's flycatcher

**SYNONYMS:** *Empidonax traillii*

**FAMILY:** Tyrannidae

**AUTHOR, PLACE OF PUBLICATION:**

**TYPE LOCALITY:** Dudleyville (formerly Feldman), on the lower San Pedro River.

**TYPE SPECIMEN:** May 30, 1940. G. Monson (A.R. Phillips collection #707, Phillips 1948).

**TAXONOMIC UNIQUENESS:** Eleven species of *Empidonax* in North America, six breed in Arizona. *E. t. extimus* one of four subspecies of *E. traillii* recognized in North America. *E. t. traillii* and *E. alnorum* once considered the same species, the Traill's flycatcher (*E. traillii*). Some sources consider *E. traillii* and *E. alnorum*, and all their subspecies, to constitute a superspecies, the "traillii complex." Two species separable by song type, habitat use, structure and placement of nests, ecological separation, and genetic differentiation.

**DESCRIPTION:** *E. t. extimus* is a medium-sized bird approximately 15.0 cm (5.75 inches) long, including tail. Body brownish-olive to grayish-green on upper parts with pale olive breast, pale yellow belly, whitish throat, and two white wing bars. Eye ring may be faint or absent. Bill relatively large with upper mandible dark and lower mandible usually entirely yellow or pale orange, often with a small dusky tip. Both sexes alike. Species best identified by vocalizations (see "Aids to Identification" below).

**AIDS TO IDENTIFICATION:** *E. traillii* and *E. alnorum* have almost identical appearances but can be distinguished by voice, range, and habitat. Typical call of *E. traillii* is a repeated "whit." Typical call of *E. alnorum* is a sharp note transcribed as either a "pip", "peek", or "bic." Song of *E. traillii* is a sneezy "fitz-bew" or "fitzi-bew" with accent on first syllable, while that of *E. alnorum* is a falling, buzzing "fee-beo" with an emphasis on the second syllable. Another distinguishing feature of *E. traillii* is the tail, which is wide compared to most *Empidonax*, especially at junction with body (Stallcup 1992). *E. t. extimus* tends to be paler in coloration than other subspecies. At higher elevations in eastern Arizona, dark individuals have been observed.

**ILLUSTRATIONS:**

- Color drawing (Scott, 1987: 291).
- Color drawing (Peterson, 1990: 239).
- Color photo ([www.sweetwater.org](http://www.sweetwater.org))
- Color photos (<http://fresc.fsl.orst.edu>)
- Color photo ([www.usgs.nav.edu](http://www.usgs.nav.edu))
- Photo and map of distribution (<http://biology.usgs.gov>)
- Photo and map of distribution (Sedgwick, 2000)

**TOTAL RANGE:** Known from southern Nevada, southern Utah, southern California, Arizona, New Mexico, western Texas, and possibly southwestern Colorado. Breeding birds from southwestern Colorado show great individual variation and are intermediate between *E. t. extimus* and *E. t. brewsteri*. *E. traillii* is a neotropical migrant and most likely winters in Mexico, Central America, and perhaps northern South America.

**RANGE WITHIN ARIZONA:** Breeds locally along the Colorado River in the Grand Canyon near mouth of Little Colorado River, and south of Yuma. Also breeds at the headwaters of the Little Colorado River near Greer and Eagar; very locally along the middle Gila, Salt, and Verde rivers; middle to lower San Pedro River; and upper San Francisco River near Alpine.

**SPECIES BIOLOGY AND POPULATION TRENDS**

**BIOLOGY:** *E. t. extimus* arrives on breeding territory by late April to early May and migrates southward again in August and September. Nest is a compact cup built of shredded bark, cattail tufts, and grasses, lined with fine grasses and feathers. Preferred nesting habitat is mature *Populus fremontii*/*Salix gooddingii* forests along still or slow moving watercourses at lower elevations; also found in *Tamarix pentandra* thickets (Suckling et al. 1992). At higher elevations, some birds are found in pure willow stands (*Salix* spp.). Brown-headed cowbird parasitizes nest by laying an egg in flycatcher's nest. Cowbird eggs hatch sooner and often out-compete the host young. As a result, flycatcher nest parasitized by cowbirds usually produces only cowbirds. Breeding colonies usually about 1.5 acres. Densities about 9-14 pairs per 100 acres.

**REPRODUCTION:** Males sing repeatedly from exposed perches while on breeding grounds, occasionally during migration. Breeding birds often heavily affected by brood-parasitism by brown-headed cowbirds. Females lay a clutch of 3-4 eggs from May through July. Incubation lasts 12-13 days, and nestlings fledge after 12-14(15) days. Usually one brood produced per year, but they have been known to raise two. Both parents tend to young.

**FOOD HABITS:** *E. t. extimus* is insectivorous, collecting flying insects by sailing (flying out short distances from perch) and, to a lesser extent, hovering and gleaning. They consume few berries and seeds.

**HABITAT:** A riparian obligate that prefers dense canopy cover, large volume of foliage, and surface water during midsummer. They appear to avoid riparian areas found in steep, closed canyons.

**ELEVATION:** In Arizona, found at elevations ranging from 75 – 9,180 feet (23-2798 m).

**PLANT COMMUNITY:** Willow-cottonwood thickets, tall dense tamarisk (*Tamarix pentandra*), Russian olive (*Eleagnus angustifolia*) and riparian associates.

**POPULATION TRENDS:** Extreme population reductions noted rangewide since 1800's because of habitat loss; though quantitative data is lacking. In the 1993 statewide survey, 23-27 paired males detected. In 1991 and 1992, Grand Canyon flycatchers, using patches dominated by tamarisk and varying in size from 0.08 hectare (0.2 acre), to 0.32 ha (0.8 ac), to 0.63 ha (1.5 ac), declined from 11 pairs in 1986 to present number of 4-5 singing males (3-4 pairs) (Tibbitts and Sogge 1993).

## **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** Revised Critical Habitat – Final (USDI, FWS 2013)  
[Critical Habitat Re-designated (USDI, FWS 2005)]  
[Critical Habitat set aside 2001 – Court Order (in USDI, FWS 2002)]  
[Critical Habitat Designated (USDI, FWS 2007)]  
LE (USDI, FWS 1995)  
[PE USDI, FWS 1994]  
[C1 USDI, FWS 1991]  
[C2 USDI, FWS 1989]

**STATE STATUS:** 1A (AGFD SWAP 2012)  
[WSC, AGFD, WSCA in prep]  
[State Endangered AGFD, TNW 1988]

**OTHER STATUS:** Not Forest Service Sensitive (USDA, FS Region 3 2007)  
[Forest Service Sensitive, Apache-Sitgreaves NF (USDA, FS 2000)]  
Group 2 (NNDFW, NESL 2001, 2005, 2008)

E, Probably Extinct in the wild of Mexico,  
(NORMA Oficial Mexicana NOM-059-  
SEMARNAT-2010)

**MANAGEMENT FACTORS:** Threatened throughout their range. Riparian habitat loss, fragmentation and brood-parasitism by brown-headed cowbirds, are two major cause of willow flycatcher decline. Other factors include diversion of water, draining of wetlands, channelization and levying of streambeds, construction of canals, drains and impoundments, livestock grazing, off-road vehicles, and the cutting of woodlands. Possible factors include predation and invasion of riparian habitat by exotic tamarisk.

**PROTECTIVE MEASURES TAKEN:** Critical Habitat initially designated in 1997, identifying 18 critical habitat units totaling 964 river km in Arizona, California, and New Mexico; Critical Habitat re-designated in 2005 after set aside by Ninth Circuit Court order in 2001.

**SUGGESTED PROJECTS:** Protection of willow-cottonwood thickets are need, along with restoration where such habitats have been destroyed; including those rivers and streams at middle and lower elevations. Continue statewide monitoring surveys of known and possible breeding sites.

**LAND MANAGEMENT/OWNERSHIP:** BIA – Colorado River, Havasupai, and Hualapai Reservations, and Navajo Nation; BLM – Arizona Strip, Safford, Tucson, and Yuma Field Offices; BOR – Phoenix Area; NPS – Glen Canyon National Recreational Area and Grand Canyon National Park; USFS – Apache-Sitgreaves and Tonto National Forests; USFWS – Cibola, Havasu, and Imperial National Wildlife Refuges; State Land Department; Alamo Lake State park; Picacho State Recreation Area; AGFD – Alamo Wildlife Area and Mittyry Lake; City of Kearny; TNC – Bingham Cienega and Hassayampa River Preserves, and Cascabel Community Management Area; Private.

## **SOURCES OF FURTHER INFORMATION**

### **REFERENCES:**

- Arizona Game and Fish Department. 1988. Threatened Native Wildlife in Arizona. Arizona Game and Fish Publication. Phoenix, Arizona. p. 15.
- Arizona Game and Fish Department. In prep. Wildlife of special concern in Arizona. Arizona Game and Fish Department Publication. Phoenix, Arizona. 32pp.
- Arizona Game and Fish Department. 2012. Arizona's State Wildlife Action Plan 2012-2022. Phoenix, AZ.
- Brown, B.T. 1988. Breeding ecology of a willow flycatcher population in Grand Canyon, Arizona. *Western Birds*. 19(1):25-33.

- Brown, B.T. 1991. Status of nesting willow flycatchers along the Colorado River from Glen Canyon Dam to Cardenas Creek, Arizona. Endangered species report no. 20 to the U.S. Fish and Wildlife Service, Phoenix, Arizona. 34pp.
- Ehrlich, P.R., D.S. Dobkin, and D. Wheye. 1988. The birder's handbook, a field guide to the natural history of North American birds. Fireside Publishing, New York, New York.
- Hubbard, J.P. 1987. The status of the willow flycatcher in New Mexico. Status report to the New Mexico Department of Game and Fish.
- Johnson, J.B. 1989. Nongame field note: Willow flycatcher. Arizona Wildlife Views, 32(10):20. Arizona Game and Fish Department Publication. Phoenix, Arizona.
- Lehman, p. 1985. Calls of the alder and willow flycatcher. Western Birds, 16(4):189.
- Navajo Nation, Navajo Fish and Wildlife Department. 2001. Navajo Endangered Species List. Navajo Nation Department of Fish and Wildlife. 2005. Endangered Species List for the Navajo Nation. The Navajo Nation, Window Rock, Arizona. P. 2.
- Navajo Nation Department of Fish and Wildlife. 2008. Endangered Species List for the Navajo Nation. The Navajo Nation, Window Rock, Arizona.
- Phillips, A.R. 1948. Geographic variation in *Empidonax traillii*. The Auk, 65:507-514.
- Scott, S.L., editor. 1987. Field guide to the birds of North America. Second Edition. National Geographic Society, Washington, D.C. p. 291.
- Secretaría de Medio Ambiente y Recursos Naturales. 2010. NORMA Oficial Mexicana NOM-059-SEMARNAT-2010, Protección ambiental-Especies nativas de México de flora y fauna silvestres-Categorías de riesgo y especificaciones para su inclusión, exclusión o cambio-Lista de especies en riesgo.
- Sogge, M.K. and T. Tibbitts. 1992. Southwestern willow flycatcher (*Empidonax traillii extimus*) surveys along the Colorado River in Grand Canyon National Park and Glen Canyon National Recreation Area. Summary report to the National Park Service and U.S. Fish and Wildlife Service.
- Stallcup, Rich. 1992. Flitty little flycatchers (The notorious *Empidonax*). The Los Angeles Chapter of the National Audubon Society. 59(1):1-4.
- Suckling, K., D. Hogan, and R. Silver. 1992. Petition to list the southwest willow flycatcher *Empidonax traillii extimus* as a federally endangered species. Letter to the Secretary of the Interior. January 25, 1992, Luna, New Mexico. 61pp.
- Tibbitts, T.J. and M.K. Sogge. 1993. Survey protocol for southwestern willow flycatchers (*Empidonax traillii extimus*). Unpublished draft report to the National Park Service and the U.S. Fish and Wildlife Service.
- USDA, Forest Service, Apache-Sitgreaves National Forest. 2000, Sensitive Species List.
- USDA, Forest Service Region 3. 2007. Regional Forester's List of Sensitive Animals.
- USDI, Fish and Wildlife Service. 1989. Endangered and Threatened Wildlife and Plants; Animal Notice of Review. Federal Register 54(4):560.
- USDI, Fish and Wildlife Service. 1991. Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species, Proposed Rule. Federal Register 56(225):58811.
- USDI, Fish and Wildlife Service. 1992. Notice of petition finding and initiation of status review. Federal Register 57(170):39664-39668.

- USDI, Fish and Wildlife Service. 1994. Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species, Proposed Rule. Federal Register 59(219):58991.
- USDI, Fish and Wildlife Service. 1995. Final Rule Determining Endangered Status for the Southwestern Willow Flycatcher. Federal Register 60(38):10694-10715.
- USDI, Fish and Wildlife Service. 1997. Final determination of Critical Habitat for the Southwestern Willow Flycatcher. Federal Register 50 CFR part 17, Effective August 21, 1997.
- USDI, Fish and Wildlife Service. 2002. Letter from David L. Harlow, Field Supervisor, to Interested Party informing that on May 11, 2001, the 10<sup>th</sup> Circuit Court of Appeals set aside the southwestern willow flycatcher critical habitat designation and instructed the Service to issue a new critical habitat designation in compliance with the court's ruling. 2321 West Royal Palm Road, Suite 103, Phoenix, Arizona 85021-4951.
- USDI, Fish and Wildlife Service. 2005. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Southwestern Willow Flycatcher (*Empidonax traillii extimus*); Final Rule. FR 70(201):60886-60913.
- USDI, Fish and Wildlife Service. 2013. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Southwestern Willow Flycatcher, Final Rule. FR 78(2):344-534.
- USGS, National Biological Service web site, <http://biology.usgs.gov>, Southwestern Willow Flycatchers in the Grand Canyon by Mark K. Sogge.
- Unitt, P. 1987. *Empidonax traillii extimus*: an endangered subspecies. Western Birds. 18(3):137-162.
- Whitney, B. and K. Kaufman. 1986. The *Empidonax* challenge. Looking at *Empidonax*. Part III: "Traill's" flycatcher: The alder/willow problem (*Empidonax alnorum* and *E. traillii*). Birding. 18(3):153-159.

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**ADDITIONAL INFORMATION:**

Field workers should be aware that the subspecies *E. t. brewsteri* is often present in *extimus* range during migration.

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