AMERICAN KESTREL *FALCO SPARVERIUS*)
A NATURAL HISTORY

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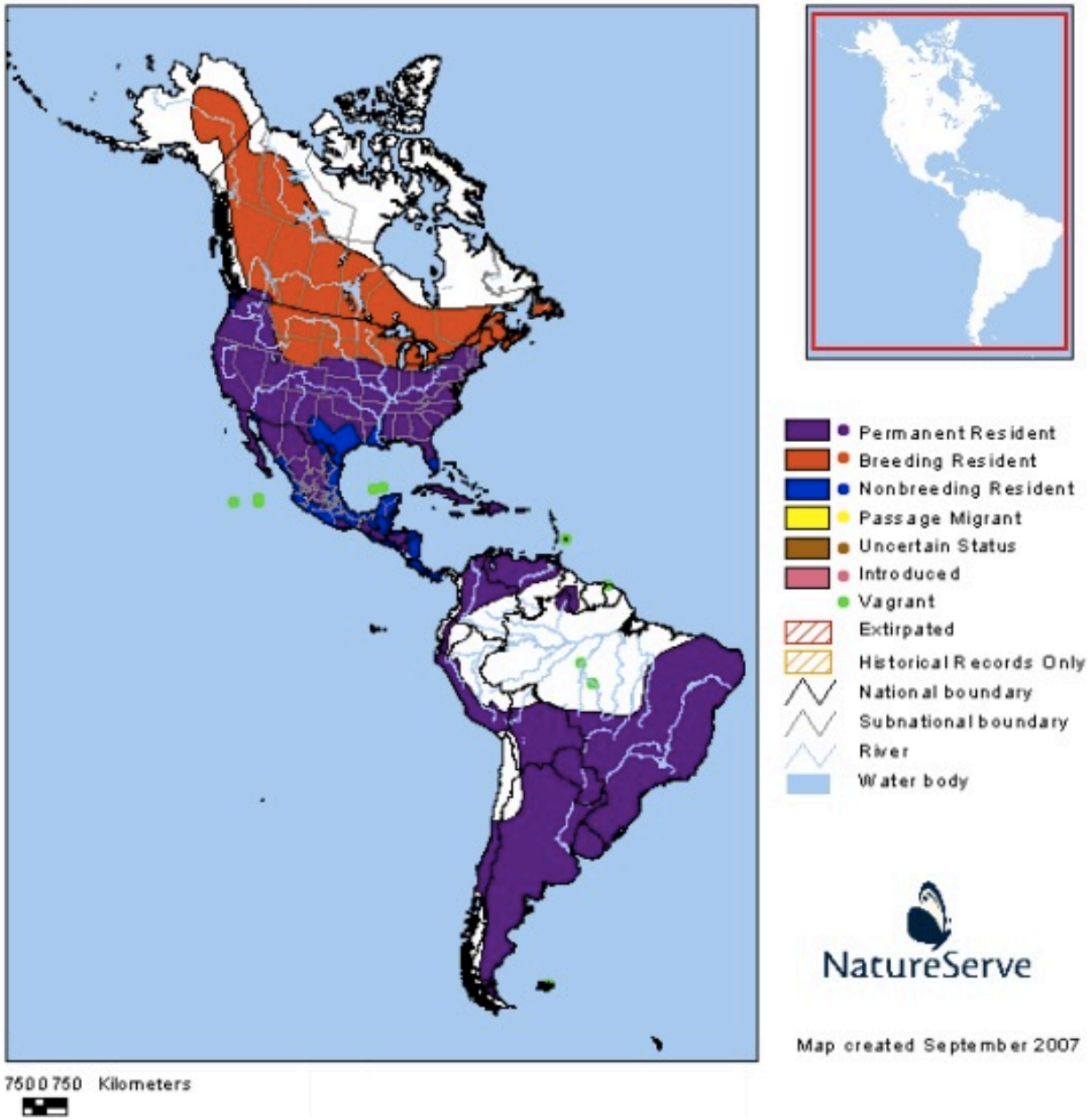
Photo: Brian Sullivan

Distribution



Falco sparverius

Subspecies

17 known subspecies

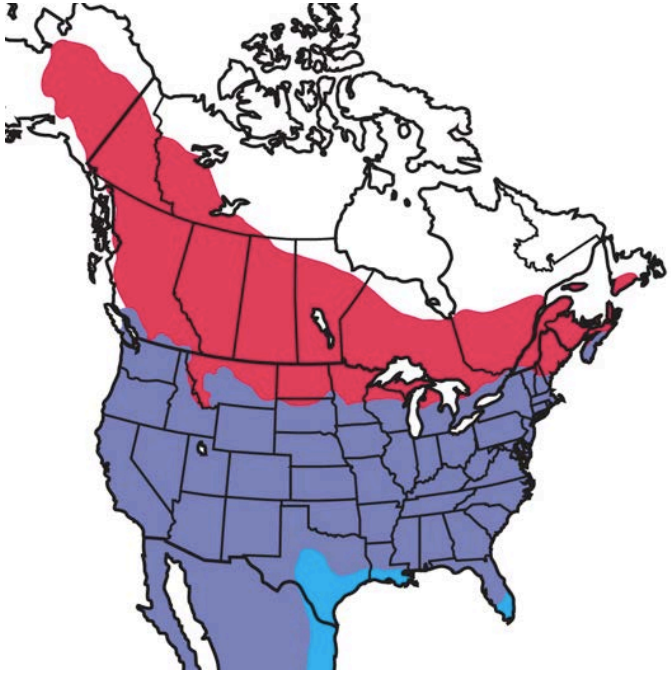
1. ***F. s. sparverius*** **:** NORTH AMERICA from Alaska to Newfoundland south through southern CANADA and the UNITED STATES (except for southeast) to western MEXICO (except for coastal areas); winters south through MEXICO and Central America to PANAMA;
2. ***F. s. paulus*** **:** UNITED STATES (South Carolina to Florida);
3. ***F. s. peninsularis*****:** MEXICO (southern Baja California, Sonora, Sinaloa);
4. ***F. s. tropicalis*****:** Southern MEXICO to northern HONDURAS;
5. ***F. s. nicaraguensis*****:** Mosquitia region of eastern HONDURAS and eastern NICARAGUA;
6. ***F. s. sparverioides*****:** CUBA and Isle of Pines; BAHAMAS (Inagua);
7. ***F. s. dominicensis*****:** HISPANIOLA;
8. ***F. s. caribaearum*****:** PUERTO RICO to GRENADA;
9. ***F. s. brevipennis*****:** NETHERLANDS ANTILLES (Aruba, Bonaire, Curaçao);
10. ***F. s. caucae*****:** Western COLOMBIA;
11. ***F. s. aequatorialis*****:** Northern ECUADOR;
12. ***F. s. peruvianus*****:** Southwestern ECUADOR, PERU and northern CHILE;
13. ***F. s. ochraceus*****:** Eastern COLOMBIA and northwestern VENEZUELA;
14. ***F. s. isabellinus*****:** VENEZUELA to northern BRAZIL;
15. ***F. s. cearae*****:** Northeastern BRAZIL south and west to eastern BOLIVIA;
16. ***F. s. cinnamominus*****:** Southeastern PERU, CHILE, BOLIVIA, southeastern BRAZIL, PARAGUAY, URUGUAY, and ARGENTINA south to TIERRA DEL FUEGO;
17. ***F. s. fernandensis*****:** Juan Fernandez Islands off west-central CHILE.

Source: Global Raptor Information Network

Migration

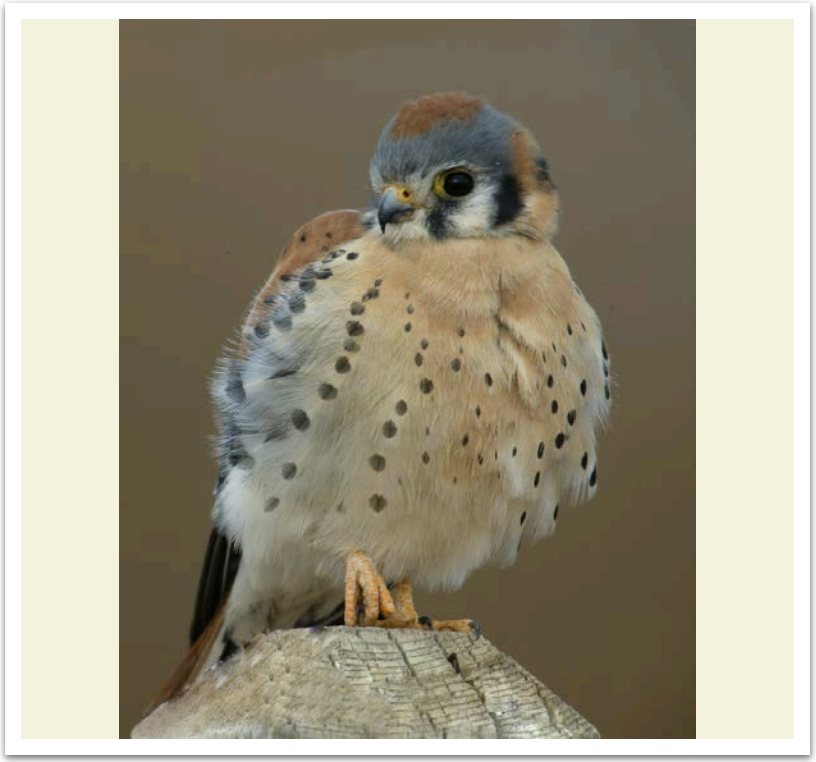
- Kestrels living in the northern most areas of their range *typically* migrate south for the winter.

- In general, those closer to the equator more often reside in the same area year-round.



Taxonomy

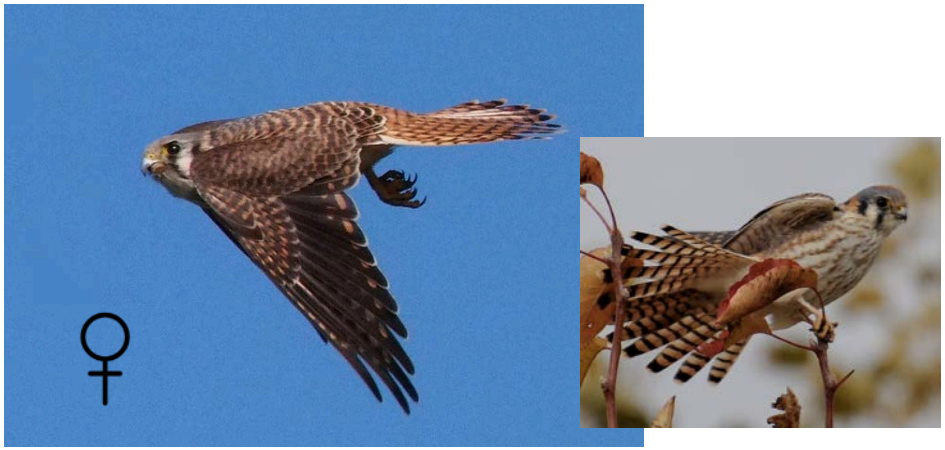
More closely related to the N. American falcons: Peregrine (*Falco peregrinus*), Merlin (*Falco columbarius*) & Aplomado (*F. femoralis)*, than to the Old World Common Kestrel (*F. tinnunculus*)



Photos (clockwise): Arthur Morris/VIREO, National Geographic Kids, Paul Noseworthy, Dave Dewitt

Morphology

- Sexually dimorphic
- One of the most colorful raptors



- Females have reddish-brown wings and crowns.

- Males exhibit blue-gray wings and crowns.

Photos: Colin Talcroft; Jeff Cooper; USFWS

Morphology

- Dimorphism
  - Females typically about 10% larger than males
- Juveniles
  - Both sexes resemble adult females
- Male skin color correlating to positive male size and territory quality (Bostrom & Ritchison, 2006)

Photos: John Crawley, Kent Keller

Habitat

- Found in almost every habitat type within their range including fields, cities, deserts, plains, mountains, and tropical lowlands.

Habitat Requirements

- Open ground for hunting
- Tall sites for perching
- Cavities for nesting

Habitat

- **Natural:** mountain meadows, areas in early succession, marshlands, grasslands, savannas, deserts, open pine forests, mixed woods/grasslands
- **Man-made:** pastures and agricultural lands, parks, and heavily developed urban areas including vacant building sites in cities, airfields, athletic fields, cemeteries, and powerline corridors

Photo: San Elijo Conservancy

Diet & Hunting

- Arthropods, small reptiles, birds, and small mammals.
- Diet changes seasonally
  - Summer: eat more insects
  - Winter: feed on mostly rodents and birds

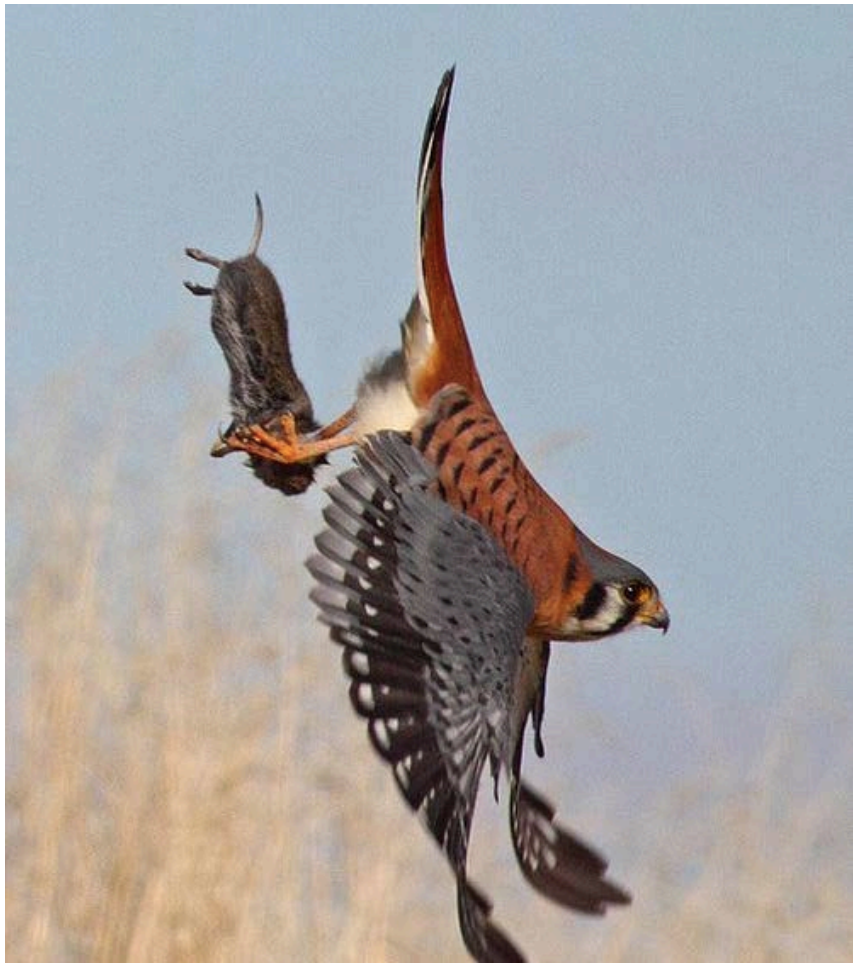


Photo: FieldsOfPheasants/tumblr

Diet & Hunting

- Typically hunt from perches
- Ability to hover in mid air when perching sites are unavailable.
- Done by facing into headwinds while wings flap and tail constantly adjusts to hold position.

Reproduction

- Secondary cavity nester
- Typically, seasonally monogamous
- Populations may be limited due to nest site availability

Reproduction

- Readily uses man-made opportunities in cities
- Including nest boxes

Photo: The Noekk; Deborah Allen

Reproduction

- Clutches: 4-6 Eggs (ranging 2-7, with 5 being the most common size)
- Incubation by both parents
  - 28-31 Days
- Eggs producing males documented to be significantly smaller (Anderson, Reeve, & Bird, 1997)
- Egg sizes increase with prey abundance (Wiebe & Bortolotti, 1995)

Photo: Anna Fasoli

Reproduction

- Females will remain with the chicks for first 1-2 weeks while male does the primary hunting.
- Nestlings are sexually dimorphic, with females being larger.
- Hatching asynchrony related to prey abundance

Photo: Kersti Nebelsiek; PPL Preserves

Reproduction

- Fledging occurs at 28-31 days
- Parents continue to feed young for about 12 days post-fledging
- Juveniles may gather in groups with other hatch-year individuals.
- Second clutches in kestrels likely to occur when first attempts fail

Morbidity & Mortality

A mortality rate average of 57 percent was found.

- Major causes of death include collision with traffic, illegal shooting, and predation.
- Susceptible to pesticide accumulation
- Diseases: susceptible to tuberculosis,trichomaniasis, coccidosis, aspergillosis, West Nile, avian influenza

Predators

Red-tail Hawk

Northern Goshawk

Cooper‘s Hawk

Peregrine Falcon

Barn Owl

Great Horned Owl

Skunk

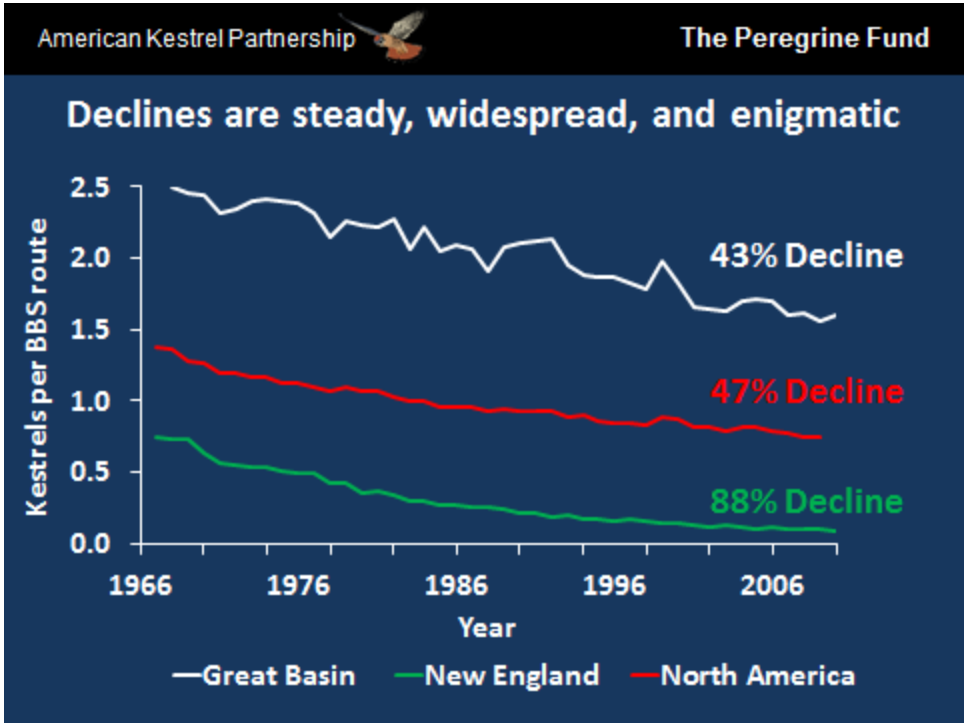
Corvids

Photos L to Right, from top-Tony H. (Nat. Geographic); Alex Rptr; Johann Schumacher; Steve Zamek; National Geographic Kids; Tim Lenz; Pat Kavanagh; Discovery Kids; Christopher Wood

Conservation Status

- Delaware (*Endangered*) – 2013 *F. s. sparverius*
- New Jersey (*Threatened*) – 2012 *F. s. sparverius*
- Connecticut (*Threatened*) – 2004 *F. s. sparverius*
- Pennsylvania (*Species of Conservation Concern*) – 2016 *F. s. sparverius*
- Florida (*Threatened)* – 2010 = *F. s. paulus*

- Limiting factors
  - Prey base, available nesting sites, adequate habitat for hunting.



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