Merlin *(Falco columbarius)*

Description/Size

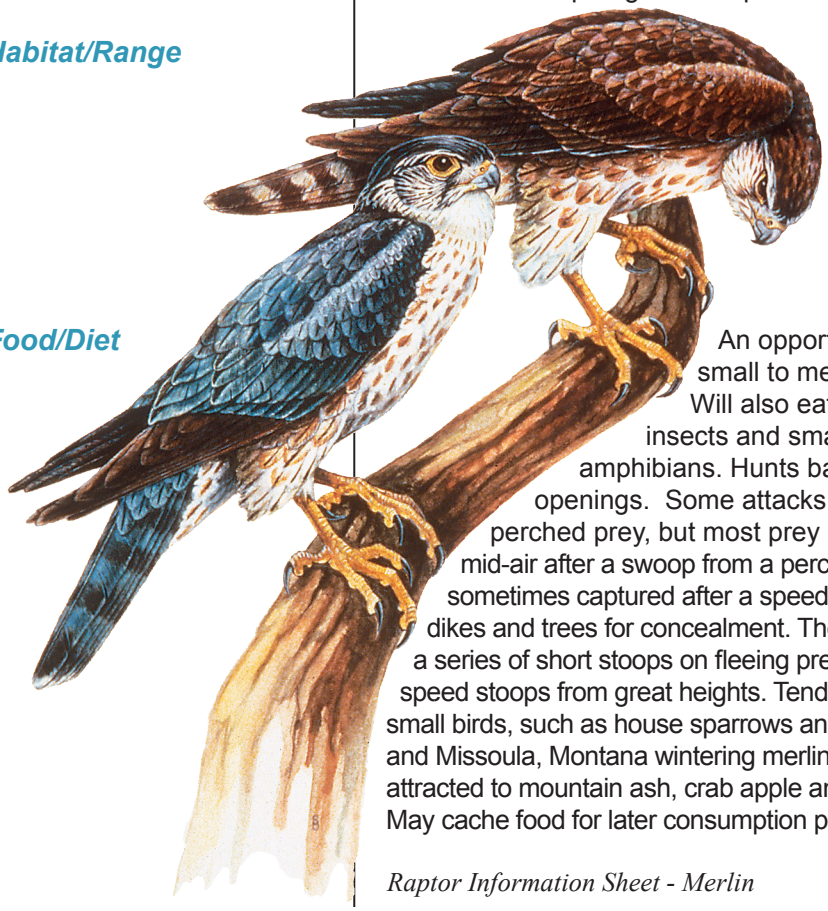
Wing span: 21-26 inches
Length: 9.5-12 inches
Weight: 5 - 8.5 ounces

Like all falcons, merlins have large heads, notched beaks, and "heavy shouldered" streamlined bodies. Three of the ten subspecies found worldwide occur in North America – the black merlin (*F.c. suckleyi*) of the Pacific NW, the prairie merlin (*F.c. richardsonii*) of the northern prairies, and the taiga merlin (*F.c. columbarius*) of the northern forests. Prairie merlins are lighter and black merlins are darker than taiga merlins. Depending on the subspecies, the male has pale blue-gray to blackish gray upperparts, underparts lightly to very heavily streaked, and dark underwings heavily spotted with white to tawny. Female is similar but with brown replacing the blue-gray/ black. Both sexes have a conspicuously banded tail, with 2-4 lighter bands and a white terminal band. The male's tail is black with gray bands while the female's is dark brown with buffy bands. Most individuals lack the distinct mustache mark that is typical of most other North American falcons. Iris is dark brown, the beak dark blue-gray, and cere and legs bright yellow. Females are 10% larger and 30% heavier than males. Juveniles resemble adult females.

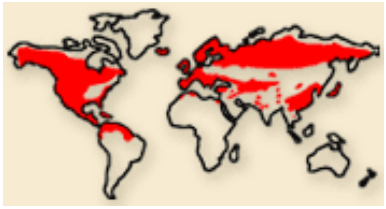
Similar Species

American kestrel –has rusty plumage. Peregrine falcon – much larger; immature birds resemble the black merlin. Prairie falcon – similar to the pale prairie merlin but larger. The dark tail with 2–5 highly contrasting narrow light bands also helps distinguish the merlin from the peregrine and prairie falcon, both of which show more bands.

Habitat/Range



Breeds throughout the northern forests, prairies, and shrub-steppes of North America, Europe and Asia from sea-level to tree line. Prefers open to semi-open areas, probably to facilitate hunting. In the U.S. it is rare in the Midwest and eastern seaboard states. Winter range is poorly documented but appears to be similar to breeding habitat.



Food/Diet

An opportunistic hunter of small to medium sized birds. Will also eat small rodents, insects and small reptiles and amphibians. Hunts bats at cave openings. Some attacks directed at perched prey, but most prey captured in mid-air after a swoop from a perch or while flying low over the ground. Prey is sometimes captured after a speedy pursuit. Will course over the landscape using hills, dikes and trees for concealment. The failure of an initial attack will frequently result in a series of short stoops on fleeing prey ("tail-chasing"). Does not typically execute high speed stoops from great heights. Tends to specialization on one or two locally abundant small birds, such as house sparrows and horned larks. In northern cities like Calgary, Alberta and Missoula, Montana wintering merlins may specialize on robins or waxwings that are attracted to mountain ash, crab apple and firethorns people have planted as ornamentals. May cache food for later consumption particularly in winter and during the breeding season.

Voice

Four types of calls. A series of loud *ki-ki-ki-ki-ki-kee* is used in territorial or aggressive situations by either sex. A *tic* (*chip*) is given by both sexes during courtship displays or when mates not in sight. The female "whines" when food-begging from the male. Both sexes "chutter" (*chrrr*) when ready to mate. Female voice is lower.

Behavior

Direct and deliberate flyer. Soars on flat wings with tail fanned. Glides on flat wings or with wrists lowered and wingtips up curved. Does not hover. Short rapid powerful wing beats. Very vocal especially around the nest; often attacks and harasses other birds, even other birds of prey. Hunts from both perches and on the wing. Prefers tracking prey from behind and overcoming it with a great burst of speed. Likes to ambush prey. Can catch two birds at once. Hunting activity peaks in early morning and late afternoon. Distinct patterns of migration are shown by different subspecies. The black merlin is generally nonmigratory but some move into s. California and New Mexico. The taiga merlin is highly migratory and winters as far south as n. Peru. The prairie merlin migrates into s. United States and s. Central America. Some winter in its breeding range (s.-central Canada and n. Prairie states), especially in prairie cities. Regularly undertakes long water crossings during migration, flying low over the waves. Also is know to migrate on days of light rain (most raptors don't). Uses flapping flight while migrating; also soars but is not required to complete migration.

Reproduction/Nesting

Does not build a nest but uses an old crow, jay, or hawk nest. Rarely uses tree cavities, cliff crevices, the ground or buildings. If nesting on ground or cliff, a scrape is made by female much as in larger falcons. Merlins breed at one year of age. Breeding pairs winter separately and each spring a new pair bond is formed or an old bond is re-established. Replacement clutches are laid if first clutch is destroyed early in the nesting season.

Clutch size: 4 to 5 eggs
Eggs: Variable rusty brown with brownish or chestnut spots and blotches, short elliptical, 1.6" x 1.3"
Incubation: 28-31 days
Fledge: 29 days
Disperse: 4 weeks

Life Span

Longest recorded – 11 years 11 months. Average lifespan about 8 years.

Conservation Status

Not on the US Fish and Wildlife's Endangered or Threatened Species List. However it is protected by the Migratory Bird Treaty Act. Idaho Fish & Game lists the merlin as a protected non game species for which it is illegal to collect, harm or otherwise remove from its natural habitat. Merlins are widespread but uncommon throughout their range. The merlin experienced serious declines due to the widespread use of DDT in the 1950s, 60s and 70s, but numbers have increased following the ban on DDT in 1972. Continued presence of environmental contaminants such as PCBs and mercury is a cause of concern, but at present does not appear to be a major factor impacting population size. The species has experienced declines in some areas due to habitat loss and human disturbance. Native habitat loss may be being offset as the species has begun to occupy areas in suburban and urban environments. These areas provided safe nest sites and abundant songbird prey. The effects of habitat loss and change on Central and South American wintering grounds are still unknown. Collisions with vehicles and windows, shooting, poisoning, and predation by cats are other sources of mortality.

Viewing in the NCA

The merlin is seen in the NCA from November through February.

Interesting Facts

- The scientific name comes from the Latin word *falx* meaning "scythe", referring to the shape of the wing and shape of the talons and *columbarius* meaning pertaining to a pigeon. This refers to the merlin's supposed resemblance to a pigeon in flight.
- Other names: pigeon hawk, little blue corporal, bullet hawk
- "Merlin" derives from *esmerillon,* the Old French name for this species.
- In Medieval Europe the merlin became popular as a "lady's hawk".
- Although not nearly as popular as the larger species, their speed and tremendous heart have earned merlins a small loyal following among falconers.

Spanish name:
Esmerejón

Sources

AXIA CD ROM - Know Your Birds of Prey
Bird Banding Lab - www.pwrc.usgs.gov/bbl/homepage/long3120.cfm
Carolina Raptor Center - http://www.carolinaraptorcenter.org/merlin.php
Hawk Mt. Sanctuary - http://www.hawkmountain.org/media/merlin.pdf
Idaho Fish&Game -http://fishandgame.idaho.gov/wildlife/nongame/birds/birdspecies.cfm
National Audubon Society - The Sibley Guide to Birds
The Peregrine Fund - www.peregrinefund.org/Explore_Raptors/falcons/merlin.html
Birds of North America Online - http://bna.birds.cornell.edu/bna/species/044
US Fish and Wildlife Service - http://ecos.fws.gov/tess_public/pub/listedAnimals.jsp
and www.fws.gov/migratorybirds/regulationspolicies/mbta/mbtintro.html

Illustrations - courtesy of Alberta Sustainable Resource Development
Map - The Peregrine Fund
Photography: BLM Photo File

Merlin

(Falco columbarius)

Female

Male

In flight

Photos: Know Your Birds of Prey, Axia CD ROM