protracted period of parental care that can extend well beyond eight months and often fail to breed in consecutive years. The species is believed to be strictly monogamous. The young are capable of reproduction at six years.

Perhaps as a result of their small stature, commensal nature, and relatively drab plumage, Hooded Vultures have attracted less attention from ornithologists than other species of African vultures. Hooded Vultures routinely engage in allo-preening a social behavior in which "one bird in a pair preens the neck and ruff of the other bird, which then returns the favor." In areas where it is a human commensal, hundreds of Hooded vultures often gather at slaughterhouses and market places to feed.

Hooded Vultures, which were not considered threatened as recently as 20 years ago, are now listed by the International Union for the Conservation of Nature as *Critically Endangered*. Current threats, which vary among regions, include being taken as bush meat and for use in witchcraft, unintentional poisoning at carcasses laced with toxins to kill mammalian predators, and intentional poisoning by poachers who want to remove vultures from an area so that their presence does not lead rangers to carcasses of poached animals. The current world population is thought to be less than 200,000 individuals.

Egyptian Vulture - *Wing span:* about 63 inches (about 5 feet). *Body mass:* 3 to 5 pounds. The relatively small body size, long wings, and prominently wedge-shaped tail provide an unmistakable silhouette.

Like the Hooded Vulture the Egyptian Vulture is one of Africa's smallest vultures. A widely recognized Old World migrant, many Egyptian Vultures migrate from Europe and Asia to Africa in late summer and early autumn, with recently fledged young typically spending several years in Africa before returning to breeding areas in Europe and Asia grounds. Egyptian Vultures also occur on the Atlantic archipelagos of the Cape Verde and Canary islands.

A sometimes human commensal, the Indian race, in particular, is closely tied to human settlements and cities where it sometimes nests on abandoned buildings. Somewhat less gregarious than many Old World Vultures, Egyptian Vultures do congregate near slaughterhouses and rubbish dumps in parts of its range. The species is unique among vultures in that it purposely throws stones at Ostrich eggs to break their shells and eat the contents.

Egyptian Vultures typically lay two eggs and usually breed annually. Their nests are exceptionally large and untidy. Adult Egyptian Vultures are beautifully colored in "white, black, yellow, and pinkish red" plumage and unfeathered body parts. Young Egyptian Vultures are capable of breeding at five to six years.

Egyptian Vultures are listed by the International Union for the Conservation of Nature as *Endangered*. Current threats, which vary among regions, include unintentional poisoning at carcasses laced with toxins to kill mammalian predators, electrocution by power lines, collisions with wind turbines, lead poisoning, and the veterinary drug diclofenac. The current world population is thought to be less than 40,000 breeding individuals.

Griffon Vulture - *Wing span:* approximately 100 inches (about 8 to 9 feet). *Body mass:* 12 to 22 pounds. The species' huge and bulky silhouette features bulging secondaries; a relatively short-tail and long, drooping neck, and a smallish head and visible neck ruff, are good field marks.

One of the most widespread of all Old World Vultures, the Griffon Vulture is largely sedentary as an adult but dispersive and often migratory as a juvenile. This huge and bulky vulture spends most of the day perched on a rocky cliff, or soaring high above the countryside in search of carrion.

The species is a carrion eater throughout most of its range, where it specializes on viscera and other soft body parts of medium to large-size mammals including livestock. Griffon Vultures typically dominate smaller vultures at carcasses. The species, which lays one-egg clutches, builds smallish stick nest on cliffs, typically in colonies.

The global population is thought to be in excess of onehalf million birds and is not listed by the International Union for the Conservation of Nature as threatened. Even so, many populations are threatened by collisions with wind turbines, lead poisoning, and the toxic veterinary drug diclofenac, as well as because they are prone to ingest un-digestible junk at garbage dumps.







Vultures and condors are the most endangered group of all birds of prey. Indeed, 73% of the world's 22 species of vultures and condors are listed by the International Union for the Conservation of Nature as *Critically Endangered, Endangered, Vulnerable, Threatened,* or *Near-Threatened* globally. By comparison, just over 30% of all raptors, including vultures and condors, are similarly threatened.

In celebration of this year's International Vulture Awareness Day (IVAD), held on 3 September, Hawk Mountain is highlighting this group of raptors with a special display of vulture flight silhouettes. The specially commissioned images include four New World Vultures and condors—the Black Vulture, the Turkey Vulture, the California Condor, and the Andean Condor —and three species of Old World Vultures, the Hooded Vulture, the Egyptian Vulture, and the Griffon Vulture, all of which can be seen along the Silhouette Trail.





Silhouette Trail vultures

The Hawk Mountain's newest education venue, the Silhouette Trail, is an ADA approved, quarter-mile path that takes you from the Sanctuary's Trail Head to the South Lookout. This autumn, the trail features life-size, in-flight silhouettes of seven of the world's 22 species of vultures and condors.

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New World Vultures

Black Vulture - *Wing span:* approximately 58 inches (about 5 feet). *Body mass:* 3 to 5 pounds. In flight, the species displays short, broad wings, and a short, somewhat square-tipped tail with toes extending.

As is true of most of the world's 22 species of vultures, Black Vultures are not known to migrate long distances.

One of the smallest of all vultures, the Black Vulture is an adept soaring machine that scavenges both small and large carcasses, as a well as human refuse, and readily adapts to human human-modified landscapes. Although basically a tropical species, Black Vultures are extraordinarily widespread in the Americas, ranging from more than 45° north in southeastern Canada to more than 40° south in southern South America. Throughout many parts of the New World Tropics, the Black Vulture is the most common bird of prey.

Black Vultures belong to the avian family Cathartidae, a group of seven species of New World Vultures that are not closely related to Old World Vultures. Unlike their close relative the Turkey Vulture, Black Vultures lack a keen sense of smell. Because of this, Black Vultures routinely follow Turkey Vultures to carcasses the latter have located by smell and, being more aggressive and social than Turkey Vultures, typically dominate the latter at carcasses. Wing-tagging and satellite tracking have rekindled an interest in Black Vulture migration, and Hawk Mountain scientists are now studying the seasonal movements of this species in Pennsylvania, Arizona, and Argentina.

Like other New World Vultures, Black Vultures do not build nests but rather nest on the floors of abandoned buildings, in caves, and in hollow, fallen dead trees. The species is monogamous. Pairs feed their young for up to eight months after fledging, a period during which the young birds appear to integrate themselves into Black Vulture society. Like Turkey Vultures, Black Vultures appear to be increasing in numbers and expanding their geographic range.

Turkey Vulture - *Wing span:* approximately 67 inches (about 5 and a half feet). *Body mass:* 3 to 5 pounds. In flight, the species holds it wings upswept in a dihedral, and displays longish, eagle-size wings and a long, rounded tail.

Most of the world's 22 species of vultures do not migrate. There are exceptions, however, and the world's most widely distributed vulture, the Turkey Vulture, is one of them. Although many populations of Griffon Vultures and Egyptian Vultures, are intermediate-distance migrants, the Turkey Vulture is the world's only true trans-equatorial, longdistance migratory vulture. Turkey Vultures are restricted to the Western Hemisphere, and are extraordinarily widespread within it, ranging from more than 50° north in southern Canada to more than 50° south on the islands of Tierra del Fuego in southernmost South America. Turkey Vultures also occur across most of the West Indies, as well as on the south Atlantic Falkland Islands, 250 miles off the coast of Argentina. One of the smallest of all vultures, the species is an extraordinarily adept soaring machine that ravenously scavenges both small and large carcasses, as a well as human refuse, and readily adapts to human human-modified landscapes. Throughout many portions of its range, the Turkey Vulture is the most common bird of prey.

Turkey Vultures routinely urinate on their legs, a decidedly socially unacceptable habit that has compromised banding efforts. Although many believe the birds engage in urohidrosis—the literal translation from ancient Greek is "sweat urine"—to evaporatively cool in the heat of summer; that they do so in winter as well suggests an additional function. Turkey Vultures frequently stand on top of the carcasses they feed upon, which as they rot serve as ideal breeding-grounds for flesh-eating microbes. Although the antiseptic nature of vulture urine remains to be tested, its chemical composition suggests that it may help keep a vulture's feet and legs free of infections that might otherwise develop in cuts and scratches.

Wing-tags, satellite tracking, and the establishment of several million-bird hawkwatches in Mexico and Central America in the 1990s have rekindled an interest in Turkey Vulture migration, and we are beginning to understand the geographic scope, magnitude, and nature of this species' migratory journeys. The picture that is now emerging suggests that the Turkey Vulture's largely—if not entirely—food-free, long-distance trek between North and South America, ranks among the most extraordinary of all raptor migrations.

California Condor - *Wing span:* about 108 inches (9 feet). *Body mass:* 18 to 20 pounds. Its huge long wings featuring a "bulge" in the secondaries, together with its relatively short squared tail (in adults) are unmistakable. While gliding and soaring California Condors sometimes flex their wings in what are called "double dips."

As is true of most of the world's 22 species of vultures, California Condors are not known to migrate long distances. That said, foraging areas shift seasonally apparently in association with seasonal changes in food availability.

One of the largest of all scavenging raptors, the California Condor rarely flaps in flight except when taking off and landing, and when chasing Golden Eagles and Northern Ravens from their nest sites. The species feeds on carrion including those of beached fish and marine mammals. Unlike Black and Turkey Vultures, the California Condor it is not known to feed on road kill. Once ranging in many parts of the American West, and known from fossils to have once occurred in New York and Florida, the species is now confined to south-central California and the Grand Canyon region of northern Arizona and southern Utah.

Based on DNA evidence, the species closest relative appears to be the Andean Condor of South America. Like other New World Vultures, the species belongs to the avian family Cathartidae, a group of seven species that are not closely related to Old World Vultures. California condors, which typically do not breed in successive years, invariably lay a single egg. A cave and hollow-tree nester, the species usually nests in a series of alternative nest sites in successive years. The species is believed to be strictly monogamous. Successful captive-breeding and release programs increased captive and wildlife populations to over 400 individuals as of 2014. Lead poisoning remains the greatest threat to the species, which is currently listed by the International Union for the Conservation of Nature as *Critically Endangered*.

Andean Condor - *Wing span:* approximately 115 inches (about 10 feet). *Body mass:* 16 to 28 pounds. Its huge long wings, together with a visible neck ruff and a longish, rounded tail, are unmistakable.

Andean Condors are wide ranging, mainly sedentary scavengers the breed in and near the Andes Mountains, but sometimes range as far as eastern Patagonia and lowland Brazil when abundant food is available. The Andean Condor is one of the heaviest of all flying birds, with males weighing slightly more than females. Usually seen soaring in small groups and roosting in larger assemblages, the species can be found in the Andean slopes and cliffs from northwestern through southwestern South America. Andean Condors feed on large-bodied carrion including well-rotted carcasses, and occasionally on newborn mammals. Like the California Condor the Andean Condor feeds on the carcasses of beached marine mammals. The species often feeds together with Turkey Vultures and Black Vultures in areas where the distributions of the three overlap. The species is the national symbol of six Andean nations and figures prominently in many myths and legends.

Andean Condors are believed to be strictly monogamous. Currently listed by the International Union for the Conservation of Nature as globally *Near Threatened*, the Andean Condor, nevertheless, is more common in parts of its range than are Black Vultures and Turkey Vultures. Persecution by pastoralists for alleged attacks on livestock is a chief threat to the species whose populations are thought to be in decline.

Old World Vultures

Hooded Vulture - *Wing span:* approximately 62 inches (about 5 feet). *Body mass:* 3 to 5 pounds. The species rectangular and parallel-edged wings and somewhat short slightly rounded tail are good field marks.

Along with the Egyptian Vulture the Hooded Vulture is one of Africa's smallest vultures. The species is largely sedentary, at least in The Gambia, Ethiopia, and South Africa, where Hawk Mountain scientists are following individuals using satellite telemetry. One of Africa's most widely distributed vultures, the species is found in tropical West Africa, East Africa, and southern Africa.

Hooded Vultures are human commensals north of the Equator, but they are not so south of it, a situation that is unique among African vultures.

About the same size as the New World Turkey Vulture, Hooded Vultures lack the dihedral wing profile of the latter. The species is decidedly gregarious both when feeding and breeding, and pairs frequently build stick nests within several hundred yards or less of each other in river-edge forests. Hooded Vultures, which lay single-egg clutches, have a