

**Did you know** that during the months of August to November, the central Caribbean coastal plains of Costa Rica become one of the world's most important corridors for migratory birds? Or that during this unique natural spectacle, over 3 million birds of prey can be observed passing through the region, belonging to 17 species?

There are many migratory species of diurnal birds of prey, but those passing through our country are mainly the **Broad-winged Hawk** (*Buteo platypterus*), the **Turkey Vulture** (*Cathartes aura*) and **Swainson's Hawk** (*Buteo swainsoni*).

In Costa Rica, the **Bribri indigenous people** perform a dance in which dancers arrange themselves in a circle, representing a natural phenomenon that is repeated on the Caribbean coast every day during the migratory period: the circle that the hawks and vultures fly in when it is time to take to the skies once again.

Birds of prey are incredibly important for ecosystems due to their roles as apex predators. An absence of these birds is a sign of an unbalanced ecosystem.

## Guide to Identifying Birds of Prey

### Peregrine Falcon (*Falco peregrinus*)



L: 36-49 cm (14-19 in)  
W: 100-110 cm (39-43 in)  
**Reproduction zone:** Long-distance migratory  
**Overwintering zone:** Mexico, Central and South America  
**Average per season:** 3000  
**English name:** Peregrine Falcon



Long, pointed wings. Uniform dark slate gray color, except in the lower region (breast and throat). Powerful, rhythmic flapping. Glides, but most commonly observed flapping wings. When the tailfeathers are close together, appearance is different from the Mississippi kite due to its square-edged tail and more direct, steady flying.

### Mississippi Kite (*Ictinia mississippiensis*)



L: 34-37 cm (13-15 in)  
W: 84-94 cm (33-37 in)  
**Reproduction zones:** Southern US, from Florida to New Mexico  
**Overwintering zones:** Paraguay, eastern Bolivia, far west of Brazil  
**Average per season:** 112 145,4  
**English name:** Mississippi Kite



Long, pointed wings, similar to a falcon. Light gray underside, dark gray mantle. Long, dark tail with a slight indentation. The easiest way to tell it from the Peregrine Falcon is by the shape of the tail (square in the case of the peregrine). Juveniles: Brown with a striped body.

### Broad-winged Hawk (*Buteo platypterus*)



L: 34-44 cm (13-17 in)  
W: 81-100 cm (32-39 in)  
**Reproduction zones:** Eastern & central Canada and eastern US  
**Overwintering zones:** Southern Mexico to the Amazon  
**Average per season:** 747772,6  
**Nombre en inglés:** Broad-winged Hawk



Wings with a dark border along the edge. Light underside. The tail has white and black bands. Much smaller than the Turkey Vulture or the Swainson's Hawk. Juveniles have a striped breast and narrow brown bands on the tail. The rare dark morph has dark coloration on its body and the front of its wings.

### Swainson Hawk (*Buteo swainsoni*)



L: 48-56 cm (19-22 in)  
W: 119-132 cm (47-52 in)  
**Breeding region:** Western Canada and US, northern Mexico  
**Overwintering zones:** Argentina  
**Average per season:** 324805  
**English name:** Swainson's Hawk



Light-colored body and front half of wings. Relatively long wings lifted in a dihedral shape. Half of the wings with a dark color along the edges. Dark necklace-like band on the breast, incomplete in juveniles, with stripes on the body. Dark morph: body and front half of the wings with a dark coloration.

### Turkey Vulture (*Cathartes aura*)



L: 64-81 cm (25-32 in)  
W: 170-178 cm (67-70 in)  
**Mating zone:** América hasta S. de Canadá  
**Overwintering zones:** S. de EU, Centro & S. América  
**Average per season:** 936548  
**English name:** Turkey Vulture



Long, narrow tail and wings. Black body plumage contrasting with gray flight feathers. Head appears small. Wings form a dihedral angle. Infrequent flapping with an oscillating flight pattern.

### Black Vulture (*Coragyps atratus*)



L: 60-68 cm (24-27 in)  
W: 137-150 cm (54-59 in)  
**Annual location range:** Widely distributed in the US, Mexico, Central and South America.  
**English name:** Black Vulture



Resident species of vulture, non-migratory.

Wide wings, short and square tail. Smaller than the turkey vulture, but has a larger head and a more robust stature. Black with a white patch along primaries. Seen in thermal currents with other vultures, but rarely along migration routes.

### Osprey (*Pandion haliaeetus*)



L: 54-58 cm (21-23 in)  
W: 150-180 cm (59-71 in)  
**Reproduction zones:** Southern Canada and continental US  
**Overwintering zones:** Coasts of southern US, Mexico and Central America, well-distributed in South America to northern Argentina  
**Average per season:** 1403,8  
**English name:** Osprey



Long wings in flight, appear bent along the "wrist" into an M-shape. Frequently described as having a gull-like appearance. All of the plumage has a light underside with notable black marks.

### Swallow-tailed Kite (*Elanoides forficatus*)



L: 58cm (24-27 in)  
W: 130 cm (54-59 in)  
**Reproduction zone:** Southeastern US to eastern Peru and northern Argentina.  
**Overwintering zone:** South America  
**Average per season:** 474.6  
**English name:** Swallow-tailed Kite



Long, pointed wings. Unmistakable long, forked tail. Underside white, flight feathers black. Graceful, agile flight; floats and turns with few flaps followed by rapid descent with powerful flaps.

### Sharp-shinned Hawk (*Accipiter striatus*)



L: 24-34 cm (9-13 in)  
W: 43-56 cm (17-22 in)  
**Reproduction zone:** Northwestern and central Mexico, US and Canada  
**Overwintering zone:** US & Mexico  
**Average number per year:** 14.8  
**English name:** Sharp-shinned hawk



Short, rounded wings, long and narrow tail with a square point. Alternates flapping and gliding. Distinguished from Cooper's Hawk by its faster flaps and a shorter tail with square edges. The sharp-shinned hawk keeps its wings pointed towards its tail, giving the appearance of a proportionally smaller head than that of Cooper's Hawk.

### Cooper's Hawk (*Accipiter cooperi*)



L: 39-50 cm (15-20 in)  
W: 62-90 cm (24-35 in)  
**Reproduction zone:** Northwestern Mexico, continental US and southern Canada.  
**Overwintering zone:** US & Mexico  
**Average number per season:** 13  
**English name:** Cooper's Hawk



Short wings and long, narrow and rounded tail. Alternates flapping and gliding. Can be distinguished from the sharp-shinned hawk by its slower flapping and a proportionally longer tail with a rounded outline. Its flight profile with straight wings causes the head of the Cooper's Hawk to appear proportionally larger than that of the sharp-shinned hawk.

## List of the migratory birds of prey and vultures in Costa Rica

Order / Family /Species	English name
<b>Cathartiformes</b>	
<b>Cathartidae</b>	
<i>Cathartes aura</i>	Turkey Vulture
<b>Accipitriformes</b>	
<b>Pandionidae</b>	
<i>Pandion haliaetus</i>	Osprey
<b>Accipitridae</b>	
<i>Chondrohierax uncinatus*</i>	Hook-billed Kite
<i>Elanoides forficatus</i>	Swallow-tailed Kite
<i>Circus hudsonius</i>	Northern Harrier
<i>Accipiter striatus</i>	Sharp-shinned Hawk
<i>Accipiter cooperii</i>	Cooper's Hawk
<i>Ictinia mississippiensis</i>	Mississippi Kite
<i>Ictinia plumbea</i>	Plumbeous Kite
<i>Rostrhamus sociabilis*</i>	Snail Kite
<i>Parabuteo unicinctus*</i>	Harris's Hawk
<i>Buteo platypterus</i>	Broad-winged Hawk
<i>Buteo brachyurus*</i>	Short-tailed Hawk
<i>Buteo swainsoni</i>	Swainson's Hawk
<i>Buteo albonotatus*</i>	Zone-tailed Hawk
<i>Buteo jamaicensis</i>	Red-tailed Hawk
<b>Falconiformes</b>	
<b>Falconidae</b>	
<i>Falco sparverius</i>	American Kestrel
<i>Falco columbarius</i>	Merlin
<i>Falco femoralis</i>	Aplomado Falcon
<i>Falco peregrinus</i>	Peregrine Falcon

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# MIGRATION OF BIRDS OF PREY

## COSTA RICA



Peregrine Falcon  
(*Falco peregrinus*)



# Migration of birds of prey to Costa Rica

Costa Rica is one of five global bird migration hotspots, areas that see the arrival of over a million birds per season. These sites are **Kèkòldi**, our emblematic site in the Caribbean region, as well as Veracruz in Mexico, Eilat in Israel and Batumi in the Dominican Republic.

Currently, **74 species of raptors** are known to inhabit Costa Rica:

**4** **Cathartiformes**  
(New World Vultures)

**40** **Accipitriformes**  
(Eagles, Sparrowhawks and the White-tailed Kite)

**13** **Falconiformes**  
(Falcons and the Crested Caracara)

**17** **Strigiformes**  
(Owls and Barn Owls)

In the Caribbean plains of Costa Rica, make sure to look skyward during the months of **October and November**. Soon, the impressive spectacle of the raptor migration will be visible up there, with over three million birds of prey (hawks, kites, falcons, ospreys and turkey vultures) crossing through the country during the migration period in a phenomenon naturalists term the **"rivers of birds"**.

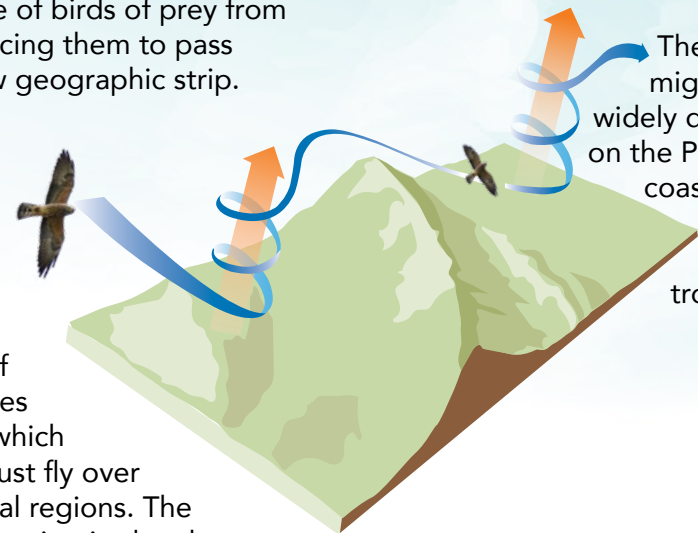
**Merlin**  
*Falco columbarius*  
Photo: Pablo Camacho



## Why is the Caribbean region of Costa Rica such an important region for the migration of diurnal birds of prey?

It is estimated that over sixteen species pass through **Kèkòldi, Costa Rica**, on their journey to overwintering habitats. This is because of the unique natural conditions of the region, which form a sort of funnel that concentrates and diverts the passage of birds of prey from North America, forcing them to pass through the narrow geographic strip.

Most migratory birds of prey require high temperatures and favorable winds to minimize the use of their energy reserves during migration, which means that they must fly over warm land in coastal regions. The importance of the region is also due to the way solar radiation heats up the air on the plains during the day and causes it to rise in a swirling pattern called a thermal current. These currents are very useful for birds, which make use of them to rise up and advance with very little effort, like sailboats pushed along by the wind on the open sea.



## Why do they migrate?

Most diurnal birds of prey in North America are migratory, flying south between August and December during the fall migration.

Their return in the spring migration is much more widely dispersed, taking place on the Pacific and Caribbean coasts, and less numerous (due to mortality and birds that stay in the tropics).

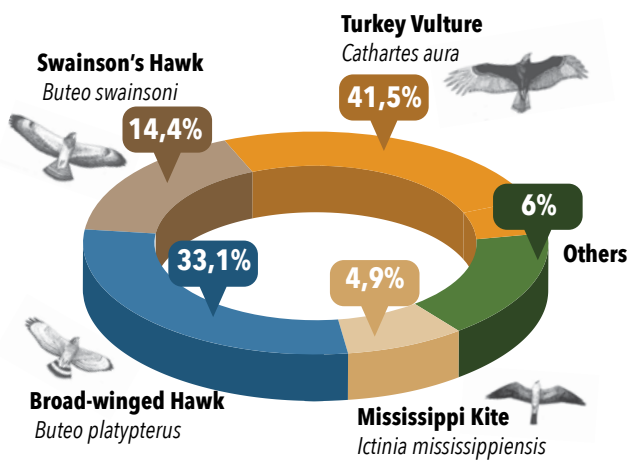
This migration is caused by severe climatic conditions during the winter and the resulting scarcity of prey. Young birds of prey in their first year of life are forced to travel south earlier than the adults, due to their developing physiology and the fact that they are still perfecting their hunting abilities.



**Kèkòldi**, in the Caribbean lowlands of Costa Rica (Talamanca, Cahuita and Puerto Viejo), sees over three million migrating birds of prey in a single season, making it the second-largest migratory path on the planet.

The area has also recorded the highest concentration of Peregrine Falcons (*Falco peregrinus*) anywhere in the world during the fall migration, with over 3,000 individuals per season.

Of these numbers, **94%** are concentrated in **4 species**:



The region has been repeatedly recognized, in Costa Rica and abroad, as a priority area for conservation.



The migration generally peaks during the first half of October, with numbers of over **500 000** individuals recorded in a single day!

