



# Orange-breasted Falcon

*Falco deiroleucus*

Parque Nacional Tikal  
Reserva de la Biósfera Maya (RBM)  
Petén, Guatemala

Pedro Pablo Marroquín  
March, 2023



## APPRECIATION FOR ENCOURAGING THE RESEARCH PROJECT



### FOR INITIATION AND COORDINATING THE COOPERACION PROJECT

2021-2025

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### FOR PROVIDING STORAGE SPACE FOR OUR CAMPING EQUIPMENT AND OTHER SUPPLIES

- **Ing. Sergio Balam** - Jefe de Manejo  
Forestal, CONAP PETÉN

### • FRONT COVER PHOTOGRAPH *Agalychnis callidryas* Frog.

Photo by: Haniel López, FLAAR  
Mesoamerica, Oct. 14, 2022.

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sec; f/5,6; ISO 1,000

### Hotel Tikal Inn

We thank Roxana Ortiz for offering to provide lodging for our research team at the Tikal Inn for our field trips starting in October 2022. Since we are not receiving payments for our field work, our budget appreciates complimentary lodging. Every workday is exhausting because we are carrying and then using very heavy cameras, super-telephoto lenses, sturdy tripods, large gimbals or ball tripod heads. Thus it is crucial for my health to be able to rest and totally recuperate every night in order to be ready for the following day of botanical and zoological adventures in Parque Nacional Tikal.

In order to post photographs on botanical and zoological websites, you can't do this if there is either no Internet or weak Internet. Thus it is very helpful that when we are provided rooms and meals, that functional Internet is available at the Hotel Tikal Inn.

#### Contact info:

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# CONTENTS

Introduction to <i>Falco deiroleucus</i> of Peten	1
FLAAR Experience with <i>Falco deiroleucus</i>	3
Full Zoological Name and taxonomy	3
Synonyms for <i>Falco deiroleucus</i>	5
Local names for <i>Falco deiroleucus</i>	5
Mayan names for <i>Falco deiroleucus</i>	7
Physical description for <i>Falco deiroleucus</i>	7
Habit and geographic distribution for <i>Falco deiroleucus</i>	7
Reproduction	9
Behavior	9
Food habits	11
Conservation status	12
Facts about <i>Falco deiroleucus</i>	12
References Cited	14

## Introduction to *Falco deiroleucus* of Peten

*Falco deiroleucus*, commonly known as the orange-breasted falcon, is a bird of prey species found in the tropical regions of the Americas. It is a relatively large bird, with a wingspan of approximately 90-110 cm and a weight of 700-1000 grams. The species is characterized by its striking orange breast and black head, wings, and back, which make it easily recognizable.

The orange-breasted falcon is of interest to conservationists and researchers due to its relatively rare and declining status. The species has a relatively small range and population size, which is further threatened by habitat loss and persecution by humans. As a result, it is classified

as a Near Threatened species by the International Union for Conservation of Nature (IUCN).

In Peten, the orange-breasted falcon has been the focus of conservation efforts and research for several decades. The region is home to one of the largest populations of the species, and researchers have studied its breeding behavior, diet, and nesting habits, among other topics.

Overall, the orange-breasted falcon is an important species that serves as a indicator of the health of tropical ecosystems. Its conservation is therefore of great importance to both researchers and conservationists working in the region.







Photo by: Haniel López, FLAAR Mesoamerica, Oct. 14, 2022.  
Camera: Nikon D810. Settings: 1/250; sec; f/5,6; ISO 1,000



## FLAAR Experience with *Falco deiroleucus*

By Vivian Hurtado

The orange-breasted falcon (*Falco deiroleucus*) is a beautiful bird, but rare to see. Although its natural distribution is wide and occurs from the southeast of Mexico and Central America, to Argentina, Paraguay and Bolivia; only a few pair of nests have been spotted at Peten thus far. It is possible to observe individuals in El Mirador National Park and Tikal National Park, as it was in one of our expeditions.

As part of current project in the Mayan Biosphere Reserve, we have been visiting different parks. On October of 2022 we went to Tikal and one of our goals was to photograph this amazing falcon and we succeeded! It was spotted in a tree next to Temple IV, in the complex known as the "Mundo Perdido." This documentation was very important because the species is in danger of extinction due to illegal hunting and the deterioration of the forest caused by human activities.

Currently, the Peregrine Fund organization has the only colony of captive orange-breasted falcons in the world to achieve their reproduction and save the species from extinction. In Tikal, the Peregrine Fund has provided its support by monitoring adult individuals and facilitating the reproduction between wild individuals. This resulted in the successful birth of two healthy chicks. Both were marked with rings to keep track of their survival.

So, it was a great experience to photograph this amazing bird and let people know the importance of protecting the Petén ecosystems that sustains many different species of flora and fauna.

## Full Zoological name and taxonomy

*Falco deiroleucus* Temminck

It belongs to the Falconidae family

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Photo by: Haniel López, FLAAR Mesoamerica, Oct. 14, 2022.  
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## **Synonyms for *Falco deiroleucus***

There is no synonym reported for *Falco deiroleucus*.

## **Local names for *Falco deiroleucus***

The following are the common names for *Falco deiroleucus*:

Orange-breasted Falcon (English)

Halcón Pecho Canela (Spanish- some parts of Mexico)

Halcón Pechirrojo (Spanish- Mesoamerica)

Halcón Negro Grande (Spanish-South America)

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Photo by: Edwin Solares, FLAAR Mesoamerica, Oct. 14, 2022.  
Camera: Sony Alpha A7C. Settings: 1/1,000; sec; f/10; ISO 1,000





## Mayan names for *Falco deiroleucus*

Not reported.

## Physical description for *Falco deiroleucus*

Its categorized as a Medium-sized falcon with a large, massive bill and huge, heavy tarsi and legs for its size. The length of females is 35-40 cm and 35-36 cm for males. Females weigh 550-700 g and males 325-425 g (Berry et al., 2020) Thus, meaning that the females are much bigger than males.

## Habit and geographic distribution for *Falco deiroleucus*

They occur in new world tropical forests from Guatemala, Belize, and some parts of southeast Mexico, south to northern Argentina, Paraguay and Bolivia (Brown and Amadon 1968, del Hoyo et al. 1994). Nesting on large cliffs or emergent trees, typically in areas of lowland or lower montane primary forest, this species is among the least known and perhaps one of the most sparsely distributed falcons in the world. In Mesoamerica appears to nest almost exclusively on cliffs, with only one instance of tree nesting known (J. Baker et al. 2000)



Photo by: Haniel López, FLAAR Mesoamerica, Oct. 14, 2022.

Camera: Nikon D810. Settings: 1/250; sec; f/5,6; ISO 1,000





Photo by: Edwin Solares, FLAAR Mesoamerica, Oct. 14, 2022.  
Camera: Sony Alpha A7C. Settings: 1/1,000; sec; f/10; ISO 1,000





## Reproduction

These birds are monogamous, which means they only have one partner at a time. The eggs are elliptical, variable in color, and take thirty-four days to hatch. They are relatively large for their size, averaging 39 to 45 grams, the average measurements being 49.9 x 38.96mm. Clutch ranges in size from two to four eggs, but almost always three, usually a replacement clutch is laid if eggs or chicks from the first clutch are lost to predation. The female does most of the incubation, the male may incubate when the female is away from the nest. Chicks grow rapidly, fed mainly by the female. Young fledge approximately 45 days after hatching, and feathers reach full growth at approximately 75 days. The time to independence and subsequent dispersal patterns are unknown. (Berry et al., 2010)

## Behavior

As mention before, Orange-breasted Falcons are monogamous. Socially speaking, they are often found alone or in pairs. They are most active at dawn and dusk, when their prey is most active.

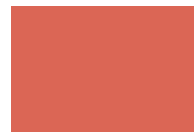
### Foraging Behavior

Perches high in a dead tree or cliff then dives on birds or bats from above or chases birds on the horizon, accelerating in long direct or climbing pursuit, often punctuated by a short stoop from above. Also hunts by stooping from tremendous heights, as Peregrine Falcons do, clutching or striking a disabling blow to its victim, then scooping it up in its net-like feet before the quarry disappears into the canopy below. It also uses a stealth strategy for capturing migrating songbirds, shorebirds, and bats, by silhouetting them against the sky at dusk and dawn. Orange-breasted Falcon is unusual in hunting primarily above the canopy.

(Cornell Lab of Ornithology, 2016)



Photo by: Haniel López, FLAAR Mesoamerica, Oct. 14, 2022.  
Camera: Nikon D810. Settings: 1/250; sec; f/5,6; ISO 1,000





## Food habits

Orange-breasted Falcon feeds on a wide variety of small to medium size birds including wild pigeons, doves, trogons, tityras, tanagers, woodpeckers, parakeets, small parrots, swifts, swallows, shorebirds, and other Neotropical migrants and bats. (Thorstrom et al., 2012) Species documented to be in the diet of Orange-breasted Falcon in Guatemala and Belize are listed below:

- Killdeer (*Charadrius vociferus*)
- Pectoral Sandpiper (*Calidris melanotos*)
- Spotted Sandpiper (*Actitis macularius*)
- Lesser Yellowlegs (*Tringa flavipes*)
- Scaled Pigeon (*Patagioenas speciosa*)
- Ruddy Ground-Dove (*Columbina talpacoti*)
- Blue Ground-Dove (*Claravis pretiosa*)
- Ruddy Quail-Dove (*Geotrygon montana*)
- Gray-headed Dove (*Leptotila plumbeiceps*)
- Mourning Dove (*Zenaida macroura*)
- Squirrel Cuckoo (*Piaya cayana*)
- Common Nighthawk (*Chordeiles minor*)
- Common Pauraque (*Nyctidromus albicollis*)
- White-collared Swift (*Streptoprocne zonaris*)
- Lesser Swallow-tailed Swift (*Panyptila cayennensis*)
- Slaty-tailed Trogon (*Trogon massena*)
- Citreoline Trogon (*Trogon citreolus*)
- Gartered Trogon (*Trogon caligatus*)
- Blue-capped Motmot (*Momotus coeruliceps*)
- Northern Emerald-Toucanet (*Aulacorhynchus prasinus*)
- Acorn Woodpecker (*Melanerpes formicivorus*)
- Golden-fronted Woodpecker (*Melanerpes aurifrons*)
- Golden-olive Woodpecker (*Colaptes rubiginosus*)
- White-crowned Parrot (*Pionus senilis*)
- Olive-throated Parakeet (*Eupsittula nana*)
- Northern Barred-Woodcreeper (*Dendrocolaptes sanctithomae*)
- Brown-crested Flycatcher (*Myiarchus tyrannulus*)
- Eastern Kingbird (*Tyrannus tyrannus*)
- Black-crowned Tityra (*Tityra inquisitor*)
- Masked Tityra (*Tityra semifasciata*)
- Rose-throated Becard (*Pachyramphus aglaiae*)
- Brown Jay (*Psilorhinus morio*)
- Green Jay (*Cyanocorax yncas*)
- Northern Rough-winged Swallow (*Stelgidopteryx serripennis*)
- Purple Martin (*Progne subis*)
- Gray-breasted Martin (*Progne chalybea*)
- Swainson's Thrush (*Catharus ustulatus*)
- Clay-colored Thrush (*Turdus grayi*)
- Tropical Mockingbird (*Mimus gilvus*)
- Tennessee Warbler (*Oreothlypis peregrina*)
- Red-legged Honeycreeper (*Cyanerpes cyaneus*)
- Botteri's Sparrow (*Peucaea botterii*)
- Rose-breasted Grosbeak (*Pheucticus ludovicianus*)
- Melodious Blackbird (*Dives dives*)
- Great-tailed Grackle (*Quiscalus mexicanus*)



## Conservation status

This bird is listed as Near Threatened on the IUCN Red List of Threatened Species based on its declining distribution and projected deforestation in the Amazon basin. In addition, several countries have listed the Orange-breasted Falcon as the most threatened category within its range. (Berry et al., 2009)

However, this species shows some tolerance to forest fragmentation and degradation, documented in cultivated fields, orchard and pasture landscapes, and has been found nesting in dead trees in cattle pastures. (Berry et al. 2010) (A. Lees in litt. 2011)

## Facts about *Falco deiroleucus*

- The current abundance and distribution of the Orange-Breasted Falcon is clouded by confusion with the similarly Plumaged Bat Falcon (*Falco ruficularis*).
- There is some level of demand for orange-breasted falcons in the overseas pet trade.
- They have excellent eyesight.
- It's one of the fastest animals in the world.
- Tikal is one of the few places where the Orange-Breasted Falcon has been able to nest.
- The *Falco deiroleucus* is almost extinct in Central America, currently only reported in Guatemala and Belize.
- It is estimated that there are 38 couples of *Falco deiroleucus* in Mesoamerica, Guatemala being the country with the most couples.





Photo by: Edwin Solares, FLAAR Mesoamerica, Oct. 14, 2022.  
Camera: Sony Alpha A7C. Settings: 1/1,000; sec; f/10; ISO 1,000





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Downloaded from <http://www.birdlife.org>

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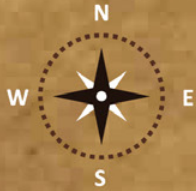
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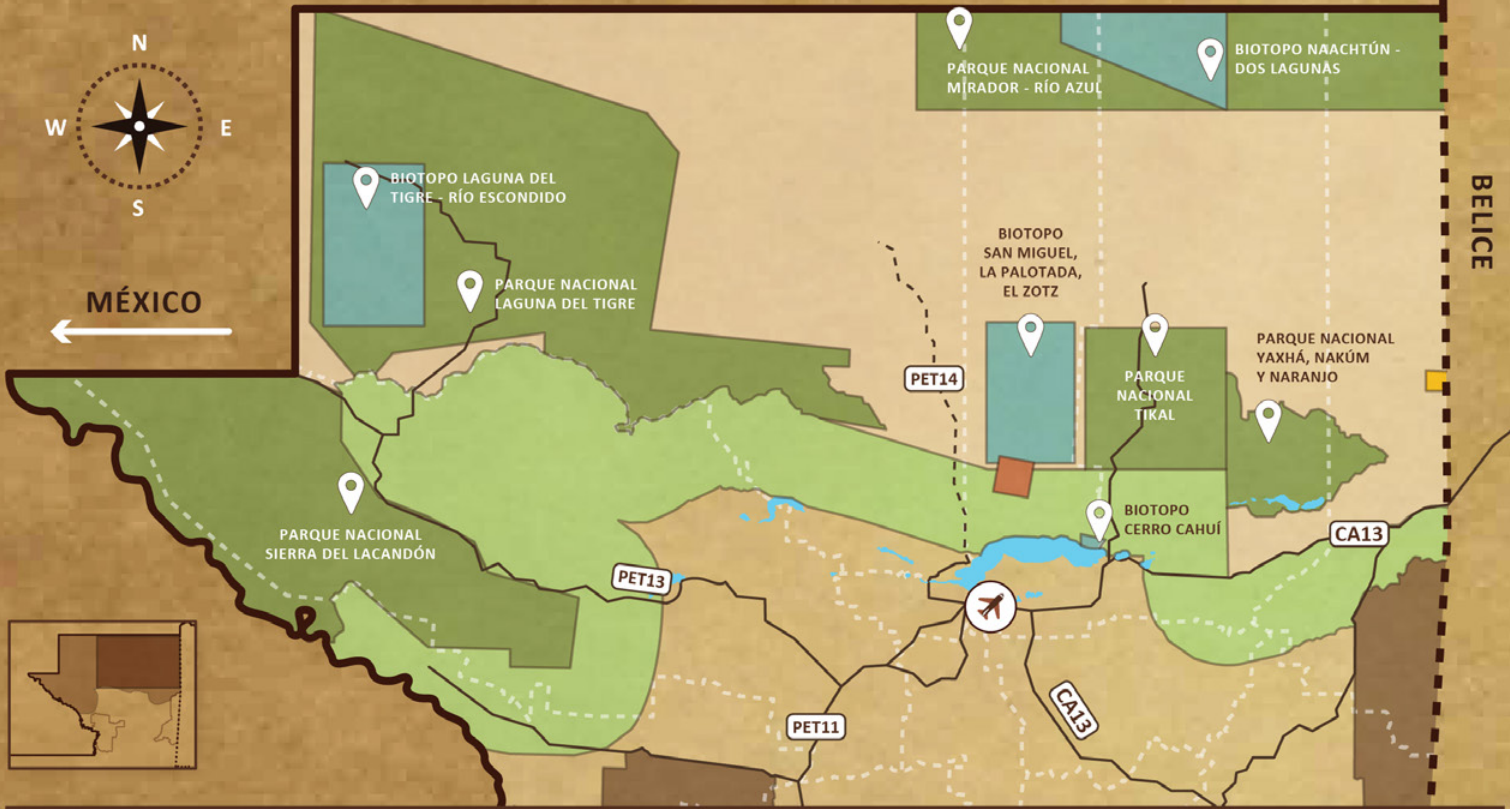
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**Belén Chacón** biology student who organizes, tabulates and updates our ethnobotanical list.

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**Hanny López** is a communication student. She manages all our social networks and digital community.

**Isabel Rodríguez Paiz** is in charge of fundraising and partnership development.

**Edwin Solares** is a photographer and videographer during our expeditions. Later, he edits this content to be used in our different materials.

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**Pedro Pablo Ranero** with a degree in communication is responsible for editing videos of flora and fauna to create content on our sites.

**Andrea Sánchez** graphic designer who helps prepare the graphic line of our publications. She is our editorial art director.

**Jaqueline González** graphic designer who combines text layout and photo editing to create our reports.

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**Juan Carlos Hernández** is a graphic designer and part of the web team. Receive the material we produce to place on our sites.

**María José García** is a graphic designer and part of the web team. Receive the material we produce to place on our sites.

**Andrés Fernández** is a graphic designer and in charge of keeping our websites updated and more efficient for the user.

**Karla Cho** helps with general research and design assistant in the office.

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**Paula García** is part of our MayanToons animation team. Her job is to bring our favorite characters to life.

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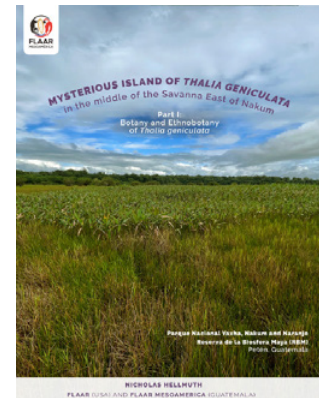
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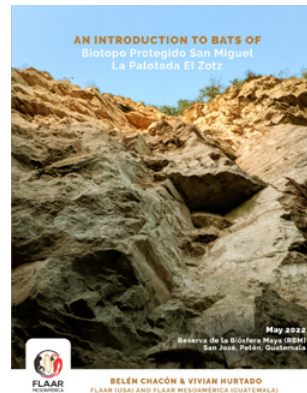
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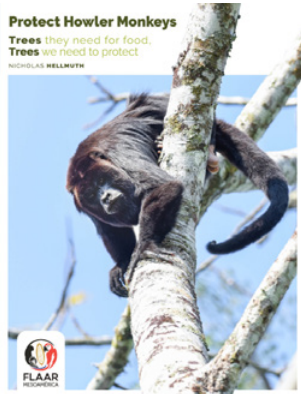


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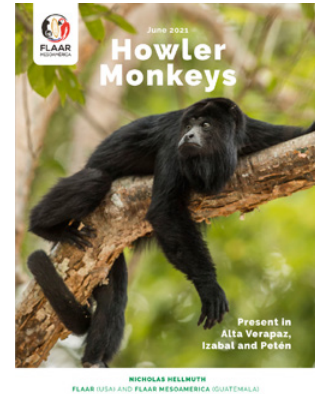
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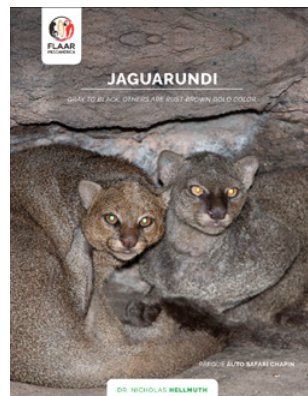
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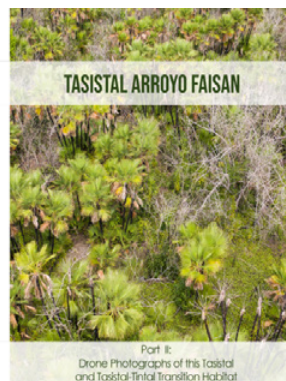
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