

phalarope were widely shared on the social media. To specifically address the problems arising due to ringing, it is important to systematically record both the frequency, and severity of impacts (Griesser et al. 2012). While there is almost no data regarding injuries to birds due to ringing in India, EURING, the European Union for Bird Ringing, has a section about reporting ringing-related damage in birds on their website.

Here, it is important that researchers and birdwatchers communicate both the positive and negative consequences of the techniques used in ringing; a hazard index is proposed to facilitate this and the index is based on a logarithmic increase of hazard points, from minor inflammations (leg partly inflamed), to inflammations (whole leg inflamed), toe loss, leg damage up to the loss of a foot or a whole leg (Griesser et al. 2012). One of the problems which can be identified in the case of the injured Indian Skimmer is that the quality of the rings used is probably not of internationally accepted standards and the sharp edges could cause problems or injuries to the birds.

It is important to note that some problems with ringing become apparent only years after the bird was ringed, making it very difficult to spot injuries caused by ringing. A few solutions are proposed for the different problems which may be caused due to ringing by Griesser et al. (2012) and ringers

should be made aware of these. While most of the ringing in India is done by the BNHS, there are no subsequent studies done to show the impacts – both positive and negative – on the birds which were ringed. As reported earlier by Raval et al. (2018), a large number of waders were ringed near Jamnagar in the last winter by BNHS and these birds were seen in the same general area for 2-3 months. It is now important that we try and spot these birds again to see if there have been any negative effects of ringing on these individuals. The three examples given here show the detrimental effects of ringing on the birds and it is hoped that these will be addressed in the future by the agencies involved – Eds]

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## A study of prey taken by Peregrine Falcon *Falco peregrinus calidus* in Little Rann of Kachchh

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### Introduction

The Peregrine Falcon (*Falco peregrinus*) is one of the most widespread bird species in the world, inhabiting habitats as varied as the Arctic tundra, deserts, forests, and oceanic islands, up to the South Sea Islands, and is the most widespread bird

of prey (White et al. 2013). Winter migrating Peregrine Falcons are widely distributed throughout the Indian Subcontinent, seen in the winter from late September to mid-April, preferring wetlands and coastal habitats, where waterfowl and shorebirds congregate. The Peregrine Falcon may also frequent artificial reservoirs, fringes of forests, and desert regions in the Indian Subcontinent.

The subspecies of Peregrine Falcon known to winter throughout the Indian subcontinent is *F. p. calidus* (Rasmussen & Anderton 2012). A good population of Peregrine Falcons is found in the Little Rann of Kachchh, Gujarat. The habitat here consists of saline wetlands and open desert, with some elevated areas with grasslands and shrubs (mostly *Prosopis* sp.), called 'bets', that rise up to 300 feet. The diverse prey base and easily available vantage points are attractive to the wintering Peregrine Falcons. They tend to spend the winter in the same general area, more or less without much movement, unless disturbed due to human activities or prey base decreases due to variation in water level in the wetlands.

## Prey consumed by Peregrine Falcons in Little Rann of Kachchh

Sr. No.	Prey	Observer(s)	References/Details
1	Common Pigeon ( <i>Columba civia</i> )	Nirav Bhatt	Author's sighting
2	Gadwall ( <i>Anas strepera</i> )	Nirav Bhatt	Author's sighting
3	Northern Shoveler ( <i>Anas clypeata</i> )	Nirav Bhatt	Author's sighting
4	Common Teal ( <i>Anas crecca</i> )	Nirav Bhatt	Author's sighting
5	Rosy Starling ( <i>Pastor roseus</i> )	Nirav Bhatt	Author's sighting, on three occasions
6	Black Drongo ( <i>Dicrurus macrocercus</i> )	Nirav Bhatt	Author's sighting, on three occasions
7	Little Cormorant ( <i>Phalacrocorax niger</i> )	Jay Shah	pers. comm.
8	Common Pigeon	Dhairya Dixit, Hardik Bhatt, Vivek Mansata	Author's sighting
9	Common Teal	Dhairya Dixit, Jay Shah, Hardik Bhatt	Author's sighting
10	Common Teal	Dhairya Dixit, Jay Shah, Hardik Bhatt	Author's sighting
11	Unidentified insect	Dhairya Dixit, Jay Shah, Aseem Khadakkar	Author's sighting
12	Common Quail ( <i>Coturnix coturnix</i> )	Dhairya Dixit, Jay Shah, Vivek Mansata	Author's sighting
13	Cormorant sp. ( <i>Phalacrocorax</i> sp.)	Dhairya Dixit, Jay Shah, Vivek Mansata, Aseem Khadakkar	Author's sighting
14	Lesser Flamingo ( <i>Phoenicopterus minor</i> )	Dhairya Dixit, Jay Shah, Hardik Bhatt	Author's sighting
15	Unidentified duck ( <i>Anas</i> sp.)	Dhairya Dixit, Jay Shah, Hardik Bhatt, Jay Solanki	Author's sighting
16	Unidentified lark ( <i>Alaudidae</i> )	Dhairya Dixit, Jay Shah, Vivek Mansata	Author's sighting
17	Cormorant sp.	Dhairya Dixit, Nirav Bhatt, Jay Shah	Author's sighting
18	Egret sp.	Dhairya Dixit, Jay Shah	Author's sighting
19	Asian Koel ( <i>Eudynamys scolopaceus</i> )	Yogendra Shah	www.indianaturewatch.net
20	Common Teal	Vipul Ramanuj	Facebook
21	Egret Sp.	Hardik Patel	Facebook
22	Unidentified duck	Anuj Gandhe	Facebook
23	Eurasian Coot ( <i>Fulica atra</i> )	Abhishek Chatterjee	Facebook
24	Indian Pond Heron ( <i>Ardeola grayii</i> )	Manu Panicker	Facebook
25	Indian Pond Heron	Harish Reddy Patlolla	Facebook
26	Montagu's Harrier ( <i>Circus pygargus</i> )	Ganesh Jayaraman	Facebook
27	Indian Pond Heron	Yogendra Shah	Facebook
28	Egret sp.	Falguna Shah	pers. comm.
29	Common Teal	Dhairya Dixit, Dhaivat Hathi	Author's sighting
30	Common Pigeon	Falguna Shah, Shweta Shah	pers. comm.
31	Lesser Flamingo	Nirav Bhatt, Dhairya Dixit	Author's sighting
32	Common Pigeon	Dhairya Dixit, Chintu Panchal, Vimal Dubal	Author's sighting
33	Northern Shoveler	Kandarp Katju	pers. comm.
34	Unidentified duck	Saddam Sumra	Facebook
35	Unidentified dove ( <i>Streptopelia</i> sp.)	Kartik Patel	Facebook
36	Egret sp.	Saddam Sumra	Facebook
37	Cattle Egret	Nirav Bhatt	Author's sighting
38	Indian Pond Heron	Falguna Shah	pers. comm.
39	Egret sp.	Suparn Khaladkar	Facebook
40	Egret sp.	Dipendrasinh Zala	Facebook

## Types of prey

In Little Rann of Kachchh, the prey consists of migratory and resident birds like Egrets (*Egretta* sp.), Common Pigeon (*Columba livia*), ducks (*Anas* sp.), etc. along with smaller birds like larks (*Alaudidae*) and quails (*Coturnix* sp.). Details of prey consumed/hunted by different Peregrine Falcons, observed by us and collected from other bird watchers, are given in the table. The data presented here has been mainly collected over the last 10 years.

## Observations regarding hunting

During the winter (September to March), we have observed Peregrine Falcons hunting/killing prey in the Little Rann of Kachchh many times. Some observations are given below:

- Around 07:00 hrs on 5 November 2014, an adult female Peregrine Falcon was observed feeding on a Common Pigeon on the fringes of the desert, near a village. It was disturbed by vehicle movements and flew to a distant place. While it was flying, a juvenile Peregrine Falcon unsuccessfully tried to pirate its kill.
- Another time, on 19 December 2015, we observed a juvenile Peregrine Falcon basking on the ground, on protruding dried mud (caused by tractor tracks). After a few minutes, it took flight and started making short stoops, attempting to capture prey. After several unsuccessful attempts, it caught an unidentified insect and consumed it partially on the wing, perched on the ground and ate it.
- We observed on 14 November 2015 a particularly big female Peregrine Falcon roosting in the shade of *Prosopis juliflora*. We photographed it for almost an hour before it flew directly to a kill. The kill appeared like a large bird from a distance, and it was identified as a Lesser Flamingo. The carcass appeared to have been slightly plucked but not eaten. The head and neck of the flamingo were not visible. The falcon removed the intestines first, and then ate the flesh for 2-3 minutes, frequently panting in between. Whether the falcon had killed a bird five times its size, or was scavenging the kill of another predator, was not clear.
- On 15 November 2016, we observed a typical hunting sequence. It started with preening and after a while, the bird took off and attained a lot of height. The Peregrine Falcon was looking like a speck through the binoculars. After circling for a few minutes, it swooped almost at 45 degrees into the small area with water and flushed some ducks. Immediately, it returned in a straight flight and caught a Common Teal out of the flushed flock. It ate the whole teal, cleaned its beak, and went into shade for afternoon roosting. (siesta?)

- A juvenile Peregrine Falcon was observed hunting a cormorant on 5 November 2017. It flew from its perch and directly followed a cormorant very close to the ground and with one small stoop, pounced on it and killed it.
- A first-year Peregrine Falcon was observed consuming a Common Pigeon on 6 December 2018. It had killed its prey when we saw it. It started plucking feathers and started eating the pigeon. We could witness it feeding for almost an hour. It plucked most of feathers. After a while, it removed its heart and ate it. Only the intestines and koilin (inner layer of pigeon's gizzard) were left out. Small stones were found from carcass of the pigeon.

## Discussion

Information from literature and these observations suggest that the prey of Peregrine Falcons wintering in the Little Rann of Kachchh is highly varied. Though most frequently reported as preying on mid-sized birds, they can adapt to both small, and large, prey. Adult Peregrine Falcons were observed to prefer similar prey items. Two huge sized, adult females were observed taking Lesser Flamingos, a prey which is many times bigger than it. But, a juvenile Peregrine Falcon was seen unsuccessfully attacking a Painted Stork (*Mycteria leucocephala*) in the western part of Little Rann of Kachchh (Ganpule 2013). Adult males were observed hunting smaller birds, preferably larks. But ducks and pigeons were hunted by the female as well as male Peregrine Falcons. One juvenile Peregrine Falcon was observed hunting egrets, cormorants and pond herons in particular. Common Quail was a surprising prey item as the species is quite uncommon in this area as compared to other preferred prey items. We saw it hunt an insect once, which was unusual. However, Peregrine Falcons have been observed capturing California Stonefly (*Pteronarcys californica*) in America (Summer & Davis 2008). From our observations, we can state that Lesser Flamingo, Asian Koel and Black Drongo is prey which has not been mentioned in reference texts for wintering Peregrine Falcons in India (Naoroji 2006). Hunting methods and timings varied with different individuals. The maximum number of hunts were observed early in the morning but a few hunts were observed during late morning, at around 11:00 hrs.

Our observations suggest that the presence of a good population of Peregrine Falcons in the Little Rann of Kachchh is very much dependent on the wetlands. They are home to a large number of water birds, which is the preferred prey of the Peregrine Falcons wintering here. Whether there is any seasonal variation in prey needs further study. As per our observations, the birds here take a wide variety of prey and the individual birds show preferences to specific prey. More

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studies will be helpful in determining the variation in prey taken by Peregrine Falcons here.

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## Sighting of Black-winged Cuckooshrike *Coracina melaschistos* at Thol Bird Sanctuary, Ahmedabad

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Sejal Daniel

On 23 December 2018, in the morning, the first author visited Thol Bird Sanctuary, near Ahmedabad, for bird watching. While searching for birds, he found an unknown bird with black wings in the shadow of a tree. It was a difficult location for taking a photo as it was dark and the bird was perched in the shadow of a tree. The bird became alert and started to move around. The first author took a few pictures although the light was very poor. Later, he contacted a few birders. But, the bird was not conclusively identified at that time.

On 6 January 2019, the second author visited the same area with Vaneet Daniel in the morning. They noticed some movement of an unknown bird, which, at first, was thought to be a Common Myna (*Acridotheres tristis*) or a Rosy Starling (*Pastor roseus*) based on its colour and size. They managed to take a few photographs but, the identity could not be confirmed. The bird was hyper active and constantly moving on top of a huge tree, making it very difficult to take good

photographs. It soon flew away and was not seen again. Later, the second author sent the images to Ashok Mashru and Prasad Ganpule for identification. They confirmed that this was a Black-winged Cuckooshrike (*Coracina melaschistos*) based on the dark grey head and body, black wings, heavy bill and white tips to tail feathers.

The second author posted the photographs on the social media and on Whatsapp groups. On seeing the photographs, the first author realized that the bird seen and photographed by him earlier in the same area was also a Black-winged Cuckooshrike. It was probably the same individual which stayed in the area for two-three weeks. The Black-winged Cuckooshrike is a vagrant to Gujarat. The first record of the species was from Shoolpaneshwar Wildlife Sanctuary in March 2015 and the second record was from Vansada National Park in November 2016 (Bhatt *et al.* 2015, Desai 2017). This is the third record of a Black-winged Cuckooshrike from Gujarat. It is most likely that it is a winter vagrant to our state as all the three records are from the winter months.

### Acknowledgements

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