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Sunbathing: A thermoregulatory behavior of wing stretching by Long-billed Vulture (*Gyps indicus*), at Bundelkhand Region, Madhya Pradesh, India

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Abstract

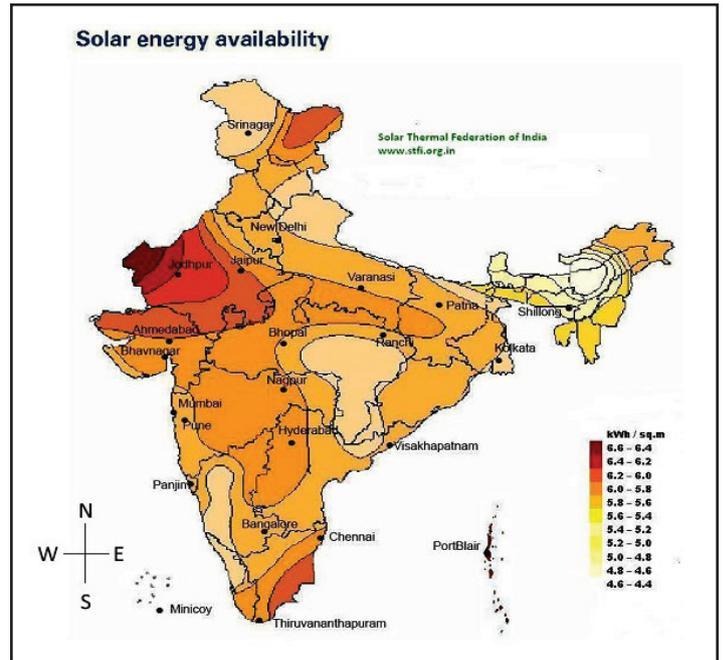
Vultures are supplementary endothermic in nature, and they warm themselves to maintain their body temperature by absorbing solar radiation. Sun Bathing is an important thermoregulatory behavior in Vultures. They take sunbath on monuments, trees, and cliffs by stretching wings and with their backs to the sun. This observational study focused on sun bathing of Long-billed Vulture (*Gyps indicus*) from May 2017 to November 2017, covering summer and winter seasons. In summer mean time duration of sun bathing was 8min 86sec and in winter was 9 min 37 sec. Minimum mean daily time (Seconds) used by Vultures for Sun Bath was 424.5 sec and maximum time spend in one day was 657 sec. The time spent for sunbathing increased from summer to winter. The vultures spent maximum 16% time and minimum 13% time of a day in summer and maximum 21% time and minimum 17% time of a day in winter. Study concluded that the daily time spent and utilization of solar radiation increased daily from summer to winter. This was essential for warming, wing drying, plumage maintenance, and removal of ectoparasites such as (mallophaga, hippobosid flies, and ticks), and other infections.

Key words: - Cliffs; Monuments; Sun bathing; Trees; Vultures; Wings-stretching.

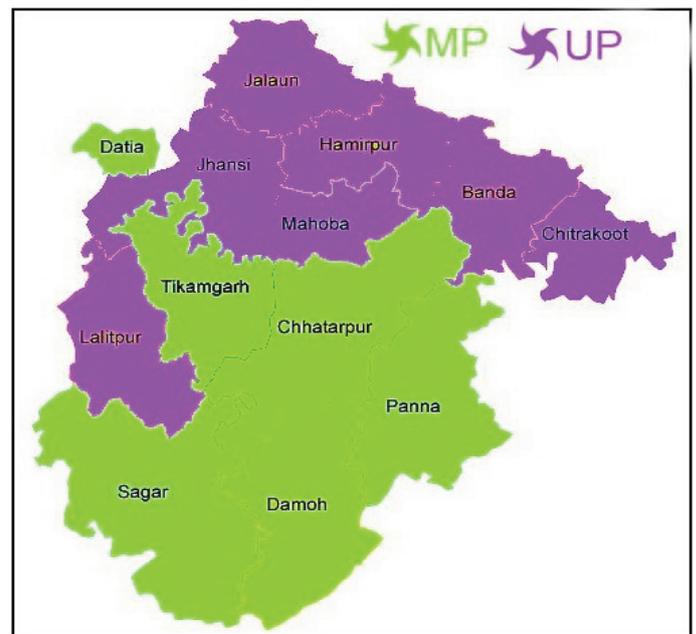
Introduction

Sun is the ultimate source of energy for plants, animals and many living organisms. Plants are the producers that take energy from sun and transfer this energy within an ecosystem to consumers and decomposers. Most of the research is done on the energy requirements by organism for various categorical activities. Much interest of scientist has focused on thermoregulatory behavior and adaptations by endothermic animals to desert and arctic environments (Schmidt-Nielsen, 1964; Scholander, 1955; Scholander *et al.*, 1950; and Irving

et al., 1955). Vultures are supplementary endothermic in nature, and they possibly will warm themselves and maintain their body temperature by absorbing solar radiation (Heath, 1962; Curry-Lindahl, 1970; Kushlan, 1973; Tom J. cade, 1973). The solar radiation directly from sun reduces the energy expenditure of birds for thermoregulation in wintry atmosphere by adopting the sun bathing posture (Hamilton and Heppner, 1967; Lustick, 1969). Sun Bathing is an important thermoregulatory function for plumage maintenance and uses sun bathing, sun basking, dust bathing, water bathing (Slessers, 1970). Sun bathing is important mostly in case of endothermic animals like reptiles, birds and those living in desert and arctic areas. Vultures spend much of their time on feather maintenance and plumage care. Many birds take sunbath at high ambient temperatures. Sun bathing activity is also observed in a wide variety of birds including large falconiforms, King Vulture (*Sacoramphus papa*), Indian King Vulture (*Sarcogyps calvus*), White-backed Vulture (*Gyps africanus*), and a Bald Eagle (*Haliaeetus leucocephalus*); several species of Parrots (Psittaciformes), Toucans (Piciformes), Hornbills (Coraciiformes), Doves and Pigeons (Columbiformes), Herons (Ciconiiformes), Tropical American Jays and a Magpie (Corvidae), and other Passerine birds. Sun-bathing has been described for more than 170 species of birds of 48 families or subfamilies and in most avian orders (Kennedy, 1969), Sun bathing is also seen in roadrunners and some other species such as White Crowned Sparrow (*Zonotrichia leucophrys*), Mousebirds (Coliiformes), and Pygmy Falcon (*Polihiernx semitorquatus*) in the Kalahari Desert. Sun-bathing is not only used for thermoregulatory mechanism but also for maintenance of their flight muscles by the virtue of which birds can travel several kilometers for food by soaring at high altitudes. Vultures would be expected to absorb much solar radiation in comparison to other birds. They stretch their wings when they are wet than when they are dry, to dry the feathers, sometimes they spread their wings to realign feathers or to get rid of the ectoparasites, to remove dust from feathers (Clark and Ohmart, 1985) and to owing dark coloration absorb better heat (Hamilton and Heppner, 1967; Lustick, 1969; Marder, 1973) at low wind speeds (Walsberg *et al.*, 1978), Vultures spread their wings mostly during cold weather as compared to warm weather (A.G. Clark, 1969; Mueller; 1972; Grier, 1975). Present study focuses on the daily time



Source: www.mapsofindia.com



Bundelkhand today between Madhya Pradesh & Uttar Pradesh, India

Fig-1 Map of Study Area

utilization and importance of wing stretching behavior of sunbathing during summer and winter seasons.

Material and Methods

Bundelkhand region situated in the heart of India consist 14 districts of Madhya Pradesh and Uttar Pradesh bundelkhand region is marked by extremes of temperature reaching 48°C during the summer months and dropping sometimes as low as 1°C in the winter.

The temperature begins to rise in February and reaches its peak in May-June. The rainfall distribution pattern is irregular, with approximately 90% of total rainfall in the region caused by the monsoon falling from June to October. Average rainfall per year is 800-900 mm but most of it is lost as run-off. Over the past ten years, the rainfall pattern has become very erratic and total rainfall has also fallen drastically, which has caused adverse effect on growth and regeneration of the vegetation. July and August are the months of maximum rainfall, while November and April are the driest months of the year.

The study was carried out from May 2017 to November 2017 on this little known aspect of bird behavior in various parts of the Bundelkhand region. Study recorded the sun bathing behavior of vultures. Data was logged by the use of timer and mean calculated by using SPSS software Version 20 and Microsoft office Excel. Pictures were taken by 700D SLR camera during study to capture the various postures of vultures and the positions of the different body parts during sun bathing behavior. Data was gathered by recording the time duration for one process of sun bathing in the study area and time recorder was used for this purpose in summer and winter months.

Results & Discussion

Vultures spend most of their time in self-maintenance. This maintenance includes preening, dust bathing, sun bathing, basking. Sun bathing was usually seen in early morning or during sunny spells on cloudy days. Most of the Vulture species used rocks or stones for sun bathing. They also used mature trees, top of monuments and river banks.

The sunbathing behavior of *Gyps indicus* included full stretching of both wings and keeping their face against the sunlight. They remain motionless by exposing their backs to the sun for more than one minute during any time of the day. Similar case was observed in previous studies on *Gyps indicus* that stood upright, turned their back to sun and fanned their tails partially or completely spread the wings (A. Samson *et al.*, 2014). Sun bathing behavior was also displayed by adult and juveniles (older than three weeks) both.

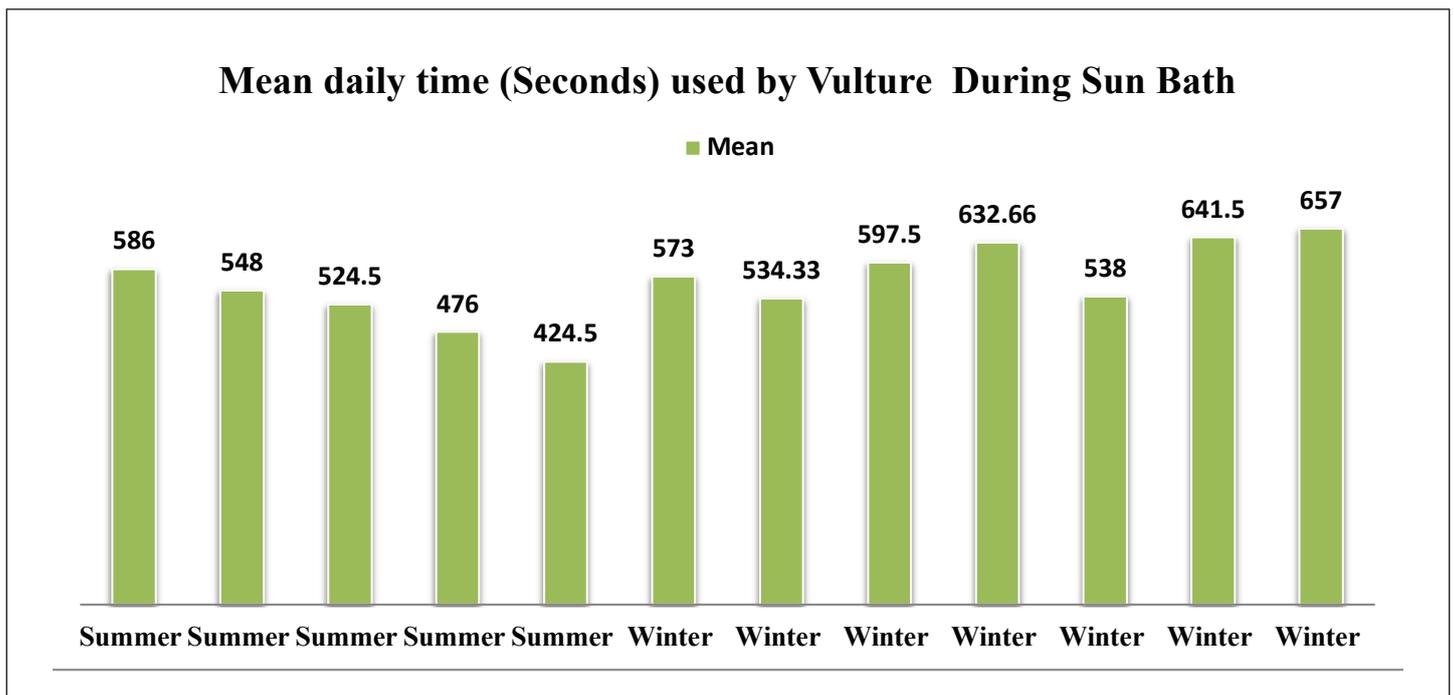
The mean time of sun bathing in Long-billed Vulture (*Gyps indicus*) was 8-9 min (531.8 seconds) during summer season and 9-10 min with the mean of 596.28 seconds during winter season (Table-1). The time spent for sunbathing increased from summer to

winter. Minimum mean daily time (Seconds) used by Vultures during Sun Bath was 424.5sec and maximum time spent in one day was 657sec (Fig-1). Daily percent of sunlight used by Vultures during winter and summer is shown in (Fig- 2A,2B). Vultures used more sunlight during winter as compared to summer (Fig-3). As the temperature changed from the end of summer to starting of winter, the time utilization of vultures for sunbath increased (Fig-4A,4B).

The main outcome of sunbathing by wing stretching behavior seems to be the cleaning of the body and plumage maintenance, removal of ectoparasites and maintaining the elasticity of the feathers. They also use water bath, sunbath or dust bath. According to Cade, sunbathing posture by wing stretching of some raptors appears not only correlated with control of body temperature but also with plumage maintenance and cleaning, to keep up flexibility of flight muscles (Cade, 1973; James A. Mosher, 1976). As per Marsha A. Schlee, 1997, vultures also spread their wing for various other functions like wing-drying (Hennemann, 1982; Clark & Ohmart, 1985), Balancing (Rijkr, 1968), thermoregulation whether for raising or lowering body temperature (Heath, 1962; Hennemann, 1982; Clark & Ohmart, 1985), and to maintain flight feathers at optimum temperature.. Houston also describe the sunbathing mechanism in large soaring birds, in griffon vultures *Gyps* species, where 4-5 min of exposure to the heat of sun restored the original shape of the feathers (Houston, 1980). In all conditions they maintain their feathers using bill and by changing their posture (A. Samson *et al.*, 2014). It is also an energy transfers mechanism in some raptorial species belonging to orders Falconiformes and Strigiformes), the relationship of a spread-wing posture observed in Ciconiidae by Kahl in 1971 and in raptors (James A. Mosher, 1976; Cade, 1973). According to Marsha a. Schlee, 1997 sun-bathing is carried out in many postures but most often it occurs in the delta-wing posture, less in the half delta wing posture, least in wing droop or with the wing fully outstretched postures. Wing spreading behaviors is used by Indian King Vultures during the winter months in the North Temperate Zone. In these Indian King Vultures delta wing postures also attracted visitor's attention that referred to the phenomenon as "practicing yoga". The delta-wing posture is the main spread-wing posture used during winter months by Ciconiidae (Kahl, 1971), Areidae (Gush, 1951), and White-tailed Sea-eagle (*Haliaeetus albicilla*), Turkey

Table-1 Mean time of sun bathing during summer and winter in Vultures

S. No.	Date	Time consume in sun Bath		Minutes	Mean (Sec)
		Summer (Sec)	Winter (Sec)		
1.	24/5/2017	1172	-	9min76sec	586
2.	25/5/2017	1644	-	9min13sec	548
3.	12/8/2017	2098	-	8min74sec	524.5
4.	13/8/2017	952	-	7min93sec	476
5.	14/8/2017	749	-	7min07sec	424.5
6.	Mean			8min86sec	531.8
7.	7/10/2017	-	1146	9min55sec	573
8.	8/10/2017	-	1603	8min90sec	534.33
9.	9/10/2017	-	1195	9min95sec	597.5
10.	8/11/2017	-	1336	10min54sec	632.66
11.	9/11/2017	-	1076	8min96sec	538
12.	10/11/2017	-	1283	10min69sec	641.5
13.	11/11/2017	-	1314	10min95sec	657
	Mean			9min37sec	596.28



vulture *Cathartes aura*, American Black vulture *Coragyps atratus* (Kushlan, 1973). when sunning. Some researches described that the full spread posture in vultures is mainly used for wing-drying when sunning and balancing in case of strong wind speed. Vultures change their posture time to time during sunbathing to control rates of heat exchange that modified the angle of incidence of solar radiation. Organs such as bald head, naked-skin of the neck and inner thighs play most

important role in heat saving (Marsha A. Schlee, 1997). With body maintenance sunbathing also play important role to remove ectoparasites such as mallophaga, hippobosid flies causes itching, and blood sucking ticks that are found attaching to body of falcons and raptors (Dr Dietrich ristow, 1980). Ectoparasite also causes skin diseases.

Bearded vulture (*Gypartus barbatus*) has the habit of bathing its polluted feathers and skin in red iron oxide-

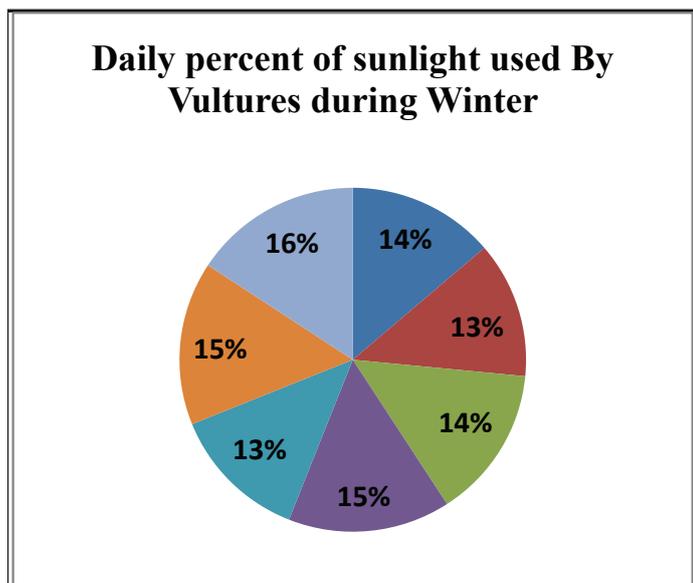


Fig-2A showing the daily percent of sunlight used By Vultures during Winter

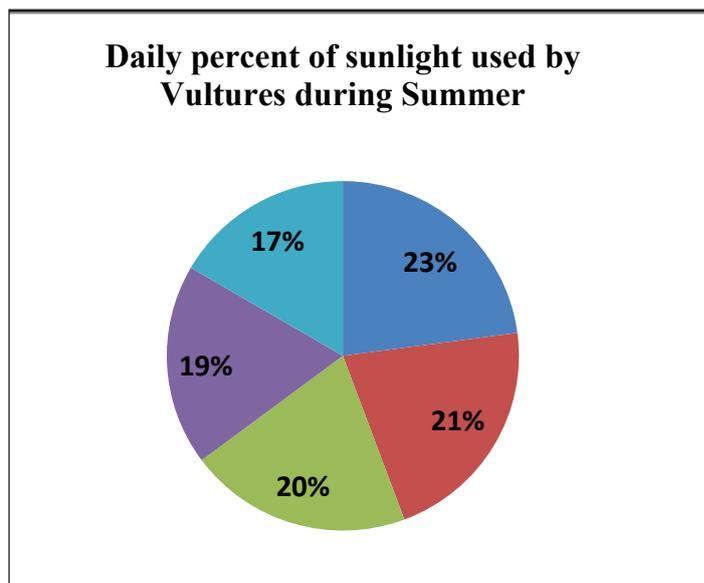


Fig-2B Showing the daily percent of sunlight used by Vultures during Summer

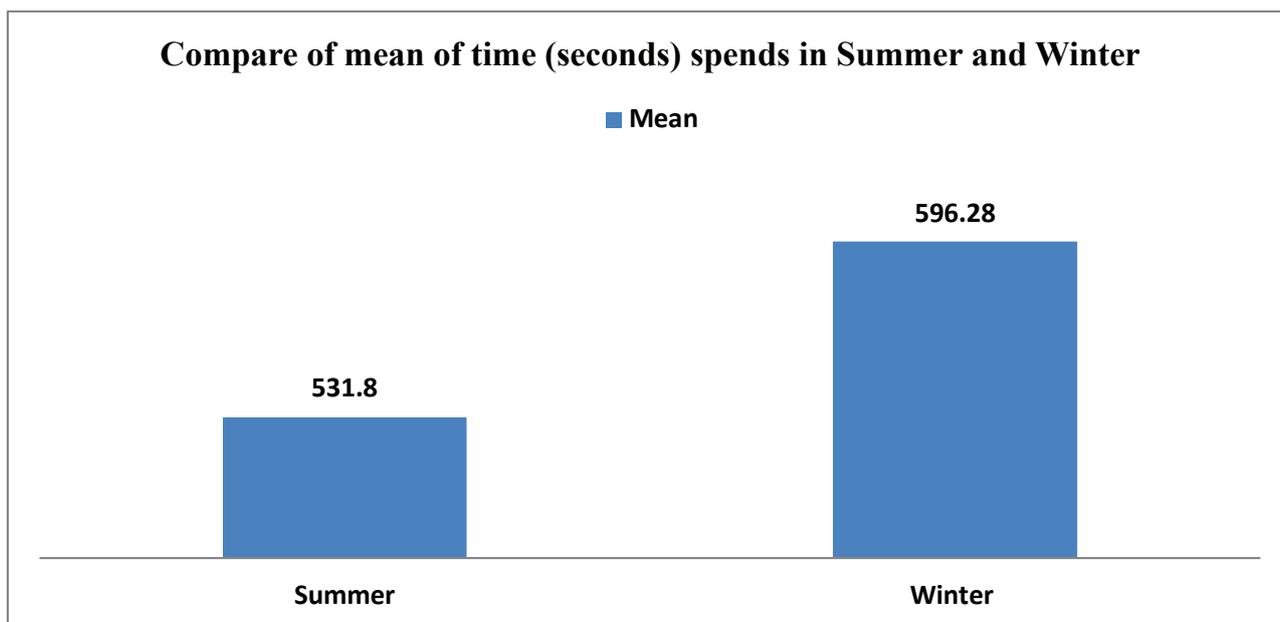


Fig-3 Showing the Compare of mean of time (seconds) spends in summer and winter

ochre-tainted water puddles because ochre is active in sunlight producing aggressive chemicals. These chemicals can kill viruses and bacteria and convert smelly organic substances into volatile neutral carbon dioxide gas. (Helmut tributsch, 2016).

Conclusions: - Sunbathing probably also maintains the flight feathers in ideal conditions apart from body warming.. In Vultures sun bathing is mainly associated with wings stretching for exposing them to direct sun light, to seek body drying, plumage maintenance, and heat exchange; to remove ectoparasites (such as

mallophaga, hippobosid flies, and ticks), viruses and bacteria. Vultures start sun bathing just after sunrise but it could occur during any time of the day. Sun bathing was seen during entire year but the time duration spent on sunbathing increased in winter as compared to summer.

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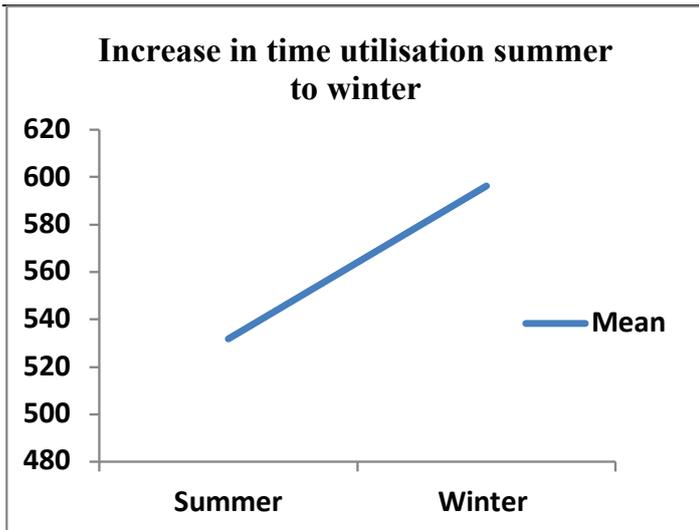


Fig-4A Showing the Increase in time utilization summer to winter

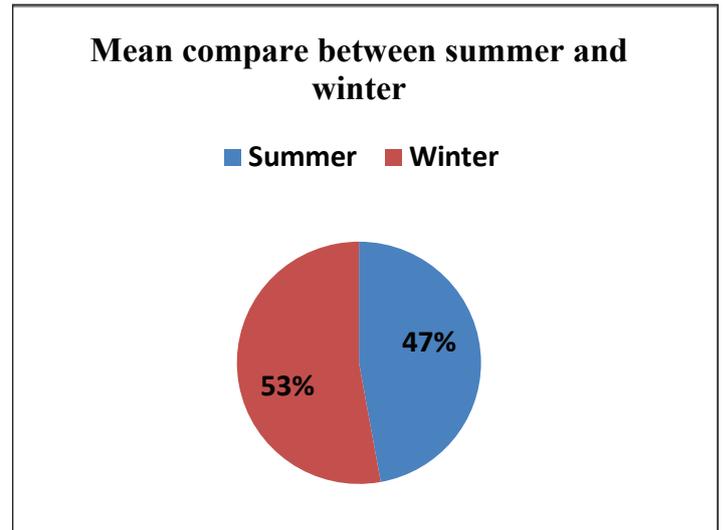


Fig-4B Showing the compare of mean percentage between summer and winter



Fig-5A Sun bathing in White backed vulture, Panna Tiger Reserve, Panna, Madhya Pradesh



Fig-5B Sun Bathing in Indian Vulture, Gwalior, Madhya Pradesh

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Fig-5C A 1-year old juvenile of long-billed vulture (*Gyps indicus*) sunning in natural light of January month, Orcha, bundelkhand region, Madhya Pradesh

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Fig-5D Adult of Long billed Vulture Sun bathing in Chatri Orcha, Bundelkhand region, Madhya Pradesh.

A checklist of birds during a trip to Tanzania

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Referee: Niranjan Sant.



Yellow Collared Love birds

Tarangire National Park (11 Oct 2017)

We reached the gates of Tarangire game reserve around noon. The office of the Game reserve was in a large tent, well-furnished and with computers. The registration was manual. We entered our names in 2 registers. The place around was shady with lots of trees. We realized that the entrance to each reserve is a well-furnished office with excellent toilet facilities and good restaurant with snacks and drinks. Outdoor seating is available. Similar facilities are available within the reserve where we would halt for lunch and to ease ourselves. Cleanliness was the hallmark of all these points. Visitors are not permitted to get down anywhere else and the way the guides were strict in imposing the rules speaks about enforcement. Each one of us had to register and entry fee was paid. Since it was noon and we had a very early breakfast, it was decided that we would enter the reserve after lunch which we had under the shade of a banyan tree. The leftover food and the packing were segregated and I later noticed that it was loaded, to be carried back to the camp. During the time we spent relaxing after lunch we could see lots of birds and at close quarters. Splendid starling, White headed buffalo weaver near the restaurant, Meyer's parrots on the trees and Blue cheeked cordon bleu by the dozen were bathing and hovering around a pipe used for watering plants. These birds are seen close to water and human habitation.

We drove into the park around 2 pm and were driving up to sunset. We saw lions, zebras, wildebeests, mongoose, ostriches and vultures. We started our return journey to Panorama Campsite and reached well after dark.



Scarlet Chested Sunbird, White Buffalo Weaver, Red Billed Hornbills

LAKE MANYARA NATIONAL PARK (12 Oct 2017):

The Panaroma campsite was situated on a high ground and commands a breathtaking view of Lake Manyara. We were the biggest group of tourists at the campsite. An early breakfast and we got down the ghat road to the Lake Manyara reserve. We first drove to a marshy stretch of shallow water where we could spot a lot of waders, stilts, pelicans, African jacanas, saddle billed stork, sacred ibis, Egyptian goose. The reeds in water were idle site for weaver bird's nest and we saw one of the reed weaver. A few terns challenged our photographic skills because of their swift movements and never settling down. We could see a few hippopotamus, though only their snouts and upper torso. A cattle egret was seen giving company to a lone buffalo. Dick informed that the herd abandons old members of herd, who in turn form small herds to protect themselves. Probably this one was one such. Sad that even animals sometime behave like humans and abandon their seniors. Having done with the residents of this marshy stretch, reminiscent of our own kolleru & Chilka lakes, we drove to the main entrance of the Manyara game reserve. After quickly completing formalities and a quick brief, we drove into the forest and we were greeted by some Blue monkeys who cutely posed for our shutter bugs. The noisy Hornbills soon attracted our attention and we were both admired particularly by younger birders and abundantly captured in our Canons and Nikons for posterity. We reached a small stream and we spotted a paradise flycatcher and a grey headed kingfisher. The flycatcher eluded our cameras and flew off. Several elephants, giraffes with red billed ox - peckers perched on them and several birds kept us engaged and around noon, we reached the first resting spot. We could get down and stretch ourselves and also relieve ourselves. En-route, we spotted the yellow and black barbet, a cute cousin of our own copper smith barbet and who adorns the cover page of "Birds of East Africa". Relaxing here for some time we could see the ubiquitous weaver birds at fairly close range and photograph with ease.

We were soon herded into vehicles and were off to our final destination of the day, the Manyara Lake. As we approached the lake we were greeted by a stretch of water dotted with hundreds of pink spots. Flamingoes in hundreds, nay thousands, were the source of pink. On the water's edge we could spot lots of waders- Egyptian geese, red billed teal, which were resting with most of their heads hidden in their wings. A teal similar to these except a black beak was also in the group- grey headed teal. Thick knee, 3 ringed plovers, white faced whistling ducks, spoonbills were some of the species we

spotted amongst hordes of large flamingoes. Because of walkway built over the waters, we could see the birds at very close range. It was fascinating to see the way these birds feed, particularly the flamingoes; they literally sweep their large curved beaks on the water's surface. It was really fascinating to see them at close range and their pretty pink colored feet. A group of school kids joined us with their incessant banter giving us anxious moments, lest the birds take to the wings. But the animals in this part of the globe seem to take all such human interventions in their stride, confident that we meant no harm. The smell of a rotten flesh assailed our vegetarian nostrils as we approached the water's edge. The source was a dead buffalo. There were no signs of predators having made the kill. It seemed to be due to more other causes. - old age or illness. This carcass attracted a White backed vulture and helped increase our tally of vultures. In between birding and photography we finished our lunch and having paid a visit to the hot water spring on the water's edge started our return journey to our next destination which was not a birding site but a cultural one- the Masai tribal village. Here we were received by all the villagers who gave us a traditional welcome, dancing for us in their traditional dress. We were all dressed in their tribal attire. This was followed by a visit to the houses and exhibition of their handicrafts. All this was for stiff cash payment. Having spent an hour at the village, we drove back to camp. En-route Dick pushed with his car another Land rover, which had broken down, several kilometers to reach it to the nearest mechanic. He did dexterously. Reaching camp after dark, we realized that there is no power supply. We spent most of the night in darkness and woke up early next morning to be greeted by dry taps in the toilets. We perforce had to fall back on the tissue rolls all of us were carrying. Water supply was restored in time for all us to have a bath before breakfast and pack to move to our next birding area and the most memorable camp of the trip. We were informed by the staff at campsite that a snake was slithering near the toilets which we were all frequenting in the night with help of our torch lights. However, he was put to rest. Some of our fellow birders paid a visit and paid their last respects to the departed soul. It was an Egyptian Spitting Cobra!!

SERENGETI National Park (13 OCTOBER 2017):

It was another bright and sunny Savannah morning and our photographers could not have asked for anything better. After savouring the best of pine apples and sweet potatoes for breakfast, the Team was all set



The King, Secretary Bird, Black Chested Snake Eagle being pursued by Rufous Crowned Roller

for the most happening wild life arenas in the African continent, The Serengeti. After a short drive we reached the Ngorongoro Conservation Area (NCA) where we had to pass through the Crater wall to proceed to Serengeti. A short halt here attracted us to the coffee shop selling home grown Tanzanian coffee and also some interesting curios.

The drive from the crater wall in to the Serengeti was truly breath taking with the usual Acacia trees of all heights and shapes. The terrain was truly a geologist's lab as was briefed in the info room. We came across some Masai model villages and their tribe's men and women all en-route grazing their cattle. A lion king was waiting at the entrance to welcome us and we were really elated so it sitting almost next to the track. This was followed by the sighting of the Eastern Chanting Goshawk with its typical black and white stockings! At the lunch spot we had the usual superb starlings, love birds, bulbuls, weavers and the unperturbed Maribou storks giving us company. Post lunch we passed through the nest of a Tawny Eagle and the Secretary Bird with a fledgling exercising the wings for a takeoff. A pride of lions too passed by, comprising of a lot of young ones enjoying themselves in the protection of the lionesses. The drive through these large expanses of grasslands was mesmerizing with no end in sight. We met a lone giraffe and some elephants when our number one vehicle got stuck in the mud. We had some anxious moments when the same herd of elephants had to pass through the column of our vehicles. The stuck up vehicle was cleverly unstuck by the guides by pushing it out of the mud using another vehicle. We have never seen a recovery of these sorts so far!

It was close to sunset and a number of birds including the Egyptian Geese flew past in flocks probably on

their way to the roosting sites. The Serengeti sunset was beautifully captured by most of the members and a lone hyena near the Airport added to the excitement. We were desperate to spot a few more animals and birds in the fading light while the drivers/guides were finding their way to the Camp site for the night stay. We were initially happy to be lost and doing night safari in the comfort of the jeep but we realised this cannot continue any longer as it was getting cold. Just then we saw the silhouette of a Verraux's Eagle owl perched on the Acacia nearby. We all struggled to get a shot of it as it was too quick and escaped in to darkness. The safari came to an abrupt stop when we chanced upon the Campsite via radio instructions from the other vehicles.

It was a scary feeling to know that we were in the open game reserve without any protection around us. But the fact that we were a large group helped us gather the minimal courage required to pass the night in the wilderness. The next morning, on the way to the Ngorongoro Crater we were fortunate to witness a Rufous Crowned Roller chasing away a Black Chested Snake Eagle. Typical to its flight, it flew banking violently to the left and to the right calling out as it chased the eagle away from its nesting area.

Ngorongoro Conservation Area (14 OCTOBER 2017):

Right after lunch on day 4 as I thought we went through the most exciting part of the safari in Serengeti, we reached the rim of the crater Ngorongoro. A day earlier, we had crossed this rim on the way to Serengeti and had stopped at a view point. The UNESCO World Heritage site looked barren except for a few water

*Ostrich**Grey Crested Crane**Bateleur Eagles*

points. I wondered what kind of wild life can possibly exist there. We saw few black spots on the crater floor below which I thought were small shrubs when one of our group members pointed out that they were elephants! That is when I realized we were at 610 meters high from the floor of the crater, and kilometers away from the elephants. The best of our binoculars could only enlarge them to the size of an ant!

Well, we still hadn't met the Big 5 with the Leopard and The Rhino evading us. So we started our journey from Serengeti to Ngorongoro Crater quite upbeat. Enter Ngorongoro! The drive down the crater was beautiful. As we entered the crater, it felt like we were in a wild life documentary (How I wished we went off the designated mud track for it!). Wildebeests, zebras and Thompson's gazelles were grazing around lazily occasionally looking at the passing tourists in land cruisers. As we trailed along the mud roads, we saw Schalow's Wheatears, Egyptian Geese, a pair of Grey Crowned Crane pecking away happily and a Kori Bustard. We also spotted the Secretary bird. It was interesting to see it rapidly trample the prey with its feet. Its tail resembling a quill justified the name along with its black and white feathers, the way Secretaries used to dress in earlier days according to our tour guide Dickson.

As we drove on we saw lush green water plants in blue waters, an oasis in the midst of a dry crater. It was the beautiful Lake Magadi. It's scenic beauty was a feast to the eyes which were till then straining to find animals and birds camouflaged in the savannah and the jungles. Far off were hippos lazing in the water beating the heat of the day with their glistening backs. Right around them were Lesser Flamingos with their long legs. It was a beauty to behold. As much as we wanted

to linger on and soak in God's beautiful creation, our tour guide lured us away with the promise of taking us closer to hippos. We had our lunch in what could be the most scenic spot of the whole trip with a couple of pelican and Hippos in the lake. We could also see the Elephants in the farthest distance. Post lunch, we started our mission on the Big 5 but spotted 3 Lions having an afternoon siesta while the peafowl were at lengths distance from them.

In our next lap, we stopped at a marsh filled with Hippos and Sacred Ibis. The hippos tossing and turning around to cool themselves against the backdrop of a small hillock was a sight to behold. We observed that some hippos had dry backs with bird dropping on them which was a bit strange. That is when we saw a pack of hyenas around. They were attempting to reach the dead hippos. The hyenas were all covered in mud and were emerging from the lake and eagerly looking toward the dead hippos, their food for the day. We saw a lone jackal too lurking around probably to get a few crumbs from the leftovers. Sadly, we couldn't stay longer to see the action as we had to move out of the crater by 4' O clock.

We embarked on the last leg of the safari, out of the crater. As if to cheer us up, a water buck appeared out of the trees on the edge of the crater. Elephants too came out to bid us bye as they fed on the dry twigs and barks of trees. The climb up was smooth and uneventful giving us time to enjoy the crater in all its beauty at various heights. We once again stopped at the same view point on the rim, only this time around I knew what was down there – untouched creation of God in perfect harmony!

We headed to Arusha with a heavy heart. Leaving Ngorongoro was not easy. We reached the Backpacker's



Red Eyed Dove



Speckled Mousebird



Black Headed Heron

den for the night stay. The next morning was spent visiting various places of interest around Arusha including the Heritage Village and some Tanzanite shopping. While we could see Mount Meru while crisscrossing the city of Arusha but Kilimanjaro looked ever elusive. We tried to get a glimpse of the peak on the return flight but the clouds never gave us a chance. May be we may have to return to Tanzania to climb the

Kilimanjaro to see the summit! The return journey to India too was pleasant and uneventful.

In all we were able to see over 200 species of birds and a number of wild animals of Africa. This trip also helped in bonding the BSAP members in bonhomie. And finally we all learnt as to why monkeys and elephants savour the Amarula fruit in the African wild!!

A checklist of birds recorded during the field visit to Tarangire, Lake Manyara and Serengati National Parks and Ngorongoro Conservation Area is kept below:

1.	Avocet, pied	<i>Recurvirostra avosetta</i>
2.	Barbet, red-and-yellow	<i>Trachyphonus erythrocephalus</i>
3.	Bateleur	<i>Terathopius ecaudatus</i>
4.	Bee-eater, blue-breasted	<i>Merops variegatus</i>
5.	Bee-eater, cinnamon-chested	<i>Merops oreobates</i>
6.	Bee-eater, European	<i>Merops apiaster</i>
7.	Bee-eater, little	<i>Merops pusillus</i>
8.	Bishop, southern red ??	<i>Euplectes orix</i>
9.	Boubou, slate-colored	<i>Laniarius funebris</i>
10.	Boubou, tropical	<i>Laniarius aethiopicus</i>
11.	Brubru	<i>Nilaus afer</i>
12.	Buffalo-weaver, red-billed	<i>Bubalornis niger</i>
13.	Buffalo-weaver, white-headed	<i>Dinemellia dinemelli</i>
14.	Bulbul, yellow-vented (dark-capped)	<i>Pycnonotus goiavier</i>
15.	Bustard, black-bellied	<i>Lissotis melanogaster</i>
16.	Bustard, kori	<i>Ardeotis kori</i>
17.	Bustard, white-bellied	<i>Eupodotis senegalensis</i>
18.	Buzzard, augur	<i>Buteo augur</i>
19.	Buzzard, grasshopper	<i>Butastur rufipennis</i>
20.	Chat, sooty	<i>Myrmecocichla nigra</i>
21.	Cordon-bleu, blue-capped	<i>Uraeginthus cyanocephalus</i>
22.	Cordon-bleu, red-cheeked	<i>Uraeginthus bengalus</i>
23.	Cormorant, reed (long-tailed)	<i>Microcarbo africanus</i>
24.	Courser, double-banded	<i>Rhinoptilus africanus</i>
25.	Crake, black	<i>Amaurornis flavirostra</i>
26.	Crane, grey-crowned	<i>Balearica regulorum</i>
27.	Crombec, red-faced	<i>Sylvietta whytii</i>
28.	Crow, pied	<i>Corvus albus</i>
29.	Cuckoo, great spotted	<i>Clamator glandarius</i>
30.	Cuckoo, red-chested	<i>Cuculus solitarius</i>
31.	Dove, African mourning	<i>Streptopelia decipiens</i>
32.	Dove, Collared	<i>Streptopelia decaocto</i>
33.	Dove, dusky turtle	<i>Streptopelia lugens</i>
34.	Dove, laughing	<i>Spilopelia senegalensis</i>
35.	Dove, namaqua	<i>Oena capensis</i>
36.	Dove, red-eyed	<i>Streptopelia semitorquata</i>
37.	Dove, ring-necked	<i>Streptopelia capicola</i>
38.	Drongo, fork-tailed	<i>Dicrurus adsimilis</i>
39.	Drongo, square-tailed	<i>Dicrurus ludwigii</i>

CHECKLIST

40	Duck, white-faced	<i>Dendrocygna viduata</i>
41	Duck, White-faced Whistling	<i>Dendrocygna viduata</i>
42	Eagle, African fish	<i>Haliaeetus vocifer</i>
43	Eagle, booted	<i>Hieraaetus pennatus</i>
44	Eagle, lesser spotted	<i>Clanga pomarina</i>
45	Eagle, martial	<i>Polemaetus bellicosus</i>
46	Eagle-owl, Verreaux's	<i>Bubo lacteus</i>
47	Eagle, short-toed snake	<i>Circaetus gallicus</i>
48	Eagle, steppe	<i>Aquila nipalensis</i>
49	Eagle, tawny	<i>Aquila rapax</i>
50	Eagle, Verreaux's	<i>Aquila verreauxii</i>
51	Egret, cattle	<i>Bubulcus ibis</i>
52	Egret, great white	<i>Ardea alba</i>
53	Egret, little	<i>Egretta garzetta</i>
54	Falcon, pygmy	<i>Polihierax semitorquatus</i>
55	Falcon, red-necked	<i>Falco chicquera</i>
56	Firefinch, red-billed	<i>Lagonosticta senegala</i>
57	Fiscal, long-tailed	<i>Lanius cabanisi</i>
58	Fiscal, southern (common)	<i>Lanius collaris</i>
59	Fiscal, Taita	<i>Lanius dorsalis</i>
60	Flamingo, greater	<i>Phoenicopterus roseus</i>
61	Flamingo, lesser	<i>Phoeniconaias minor</i>
62	Flycatcher, African dusky	<i>Muscicapa adusta</i>
63	Flycatcher, vanga ??	<i>Bias musicus</i>
64	Francolin, coqui	<i>Peliperdix coqui</i>
65	Go-away-bird, white-bellied	<i>Corythaixoides leucogaster</i>
66	Goose, Egyptian	<i>Alopochen aegyptiaca</i>
67	Goshawk, eastern (pale) chanting	<i>Melierax poliopterus</i>
68	Grebe, little	<i>Tachybaptus ruficollis</i>
69	Greenshank, common	<i>Tringa nebularia</i>
70	Grenadier, purple	<i>Uraeginthus ianthinogaster</i>
71	Ground-hornbill, southern	<i>Bucorvus leadbeateri</i>
72	Guineafowl, crested	<i>Guttera pucherani</i>
73	Guineafowl, helmeted	<i>Numida meleagris</i>
74	Gull, grey-headed	<i>Chroicocephalus cirrocephalus</i>
75	Hamerkop	<i>Scopus umbretta</i>
76	Harrier, African Marsh	<i>Circus ranivorus</i>
77	Hawk-eagle, African	<i>Aquila spilogaster</i>
78	Heron, Black-headed	<i>Ardea melanocephala</i>
79	Heron, grey	<i>Ardea cinerea</i>
80	Heron, squacco	<i>Ardeola ralloides</i>
81	Hoopoe, African	<i>Upupa africana</i>

82	Hoopoe, Eurasian	<i>Upupa</i>
83	Hornbill, African grey	<i>Tockus nasutus</i>
84	Hornbill, black-and-white-casqued	<i>Bycanistes subcylindricus</i>
85	Hornbill, silvery-cheeked	<i>Bycanistes brevis</i>
86	Hornbill, southern ground	<i>Bucorvus leadbeateri</i>
87	Hornbill, Tanzanian red-billed	<i>Tockus ruahae</i>
88	Hornbill, von der Decken's	<i>Tockus deckeni</i>
89	Ibis, glossy	<i>Plegadis falcinellus</i>
90	Ibis Hadada	<i>Bostrychia hagedash</i>
91	Ibis, sacred	<i>Threskiornis aethiopicus</i>
92	Jacana, African	<i>Actophilornis africanus</i>
93	Kestrel, Common	<i>Falco tinnunculus</i>
94	Kingfisher, grey-headed	<i>Halcyon leucocephala</i>
95	Kingfisher, malachite	<i>Corythornis cristatus</i>
96	Kingfisher, pied	<i>Ceryle rudis</i>
97	Kite, Black-shouldered	<i>Elanus axillaris</i>
98	Lapwing, Blacksmith	<i>Vanellus armatus</i>
99	Lapwing, long-toed	<i>Vanellus crassirostris</i>
100	Lapwing, spur-winged	<i>Vanellus spinosus</i>
101	Lapwing, White-headed	<i>Vanellus albiceps</i>
102	Lark, red-capped	<i>Calandrella cinerea</i>
103	Lark, short-tailed	<i>Pseudalaemon fremantlii</i>
104	Lark, singing Bush	<i>Mirafra cantillans</i>
105	Lovebird, Fischer's	<i>Agapornis fischeri</i>
106	Lovebird, yellow-collared	<i>Agapornis personatus</i>
107	Martin, common House	<i>Delichon urbicum</i>
108	Martin, Rock	<i>Ptyonoprogne fuligula</i>
109	Moorhen, common	<i>Gallinula chloropus</i>
110	Mousebird, blue-naped	<i>Urocolius macrourus</i>
111	Mousebird, speckled	<i>Colius striatus</i>
112	Nightjar, Eurasian	<i>Caprimulgus europaeus</i>
113	Oriole, African black-headed	<i>Oriolus larvatus</i>
114	Oriole, African golden	<i>Oriolus auratus</i>
115	Ostrich, Common	<i>Struthio camelus</i>
116	Owl, Barn	<i>Tyto alba</i>
117	Oxpecker, red-billed	<i>Buphagus erythrorhynchus</i>
118	Oxpecker, yellow-billed	<i>Buphagus africanus</i>
119	Paradise-flycatcher, African	<i>Terpsiphone viridis</i>
120	Pelican, Great-white	<i>Pelecanus onocrotalus</i>
121	Pelican, pink-backed	<i>Pelecanus rufescens</i>
122	Petronia, yellow-throated	<i>Petronia superciliaris</i>
123	Pigeon, feral	<i>Columba livia domestica</i>

CHECKLIST

124	Pigeon, speckled	<i>Columba guinea</i>
125	Pipit, African	<i>Anthus cinnamomeus</i>
126	Pipit, bush	<i>Anthus caffer</i>
127	Pipit, grassland	<i>Anthus cinnamomeus</i>
128	Pipit, plain-backed	<i>Anthus leucophrys</i>
129	Plover, chestnut-banded	<i>Charadrius pallidus</i>
130	Plover, common ringed	<i>Charadrius hiaticula</i>
131	Plover, crowned	<i>Vanellus coronatus</i>
132	Plover, Kentish	<i>Charadrius alexandrinus</i>
133	Plover, little ringed	<i>Charadrius dubius</i>
134	Plover, spur-winged	<i>Vanellus miles</i>
135	Robin magpie	<i>Copsychus saularis</i>
136	Roller, European	<i>Coracias garrulus</i>
137	Roller, lilac-breasted	<i>Coracias caudatus</i>
138	Roller, rufous-crowned	<i>Coracias naevius</i>
139	Ruff	<i>Philomachus pugnax</i>
140	Sandgrouse, chestnut-bellied	<i>Pterocles exustus</i>
141	Sandgrouse, yellow-throated	<i>Pterocles gutturalis</i>
142	Sandpiper, common	<i>Actitis hypoleucos</i>
143	Sandpiper, curlew	<i>Calidris ferruginea</i>
144	Sandpiper, green	<i>Tringa ochropus</i>
145	Sandpiper, marsh	<i>Tringa stagnatilis</i>
146	Sandpiper, wood	<i>Tringa glareola</i>
147	Secretarybird	<i>Sagittarius serpentarius</i>
148	Seedcracker, lesser	<i>Pyrenestes minor</i>
149	Seedeater, thick-billed	<i>Serinus burtoni</i>
150	Shoveler, Northern	<i>Anas clypeata</i>
151	Shrike, magpie	<i>Urolestes melanoleucus</i>
152	Shrike, northern white-crowned	<i>Eurocephalus rueppelli</i>
153	Silverbird	<i>Empidonax semipartitus</i>
154	Snake-eagle, brown	<i>Circaetus cinereus</i>
155	Snipe, greater painted	<i>Rostratula benghalensis</i>
156	Sparrowlark, Fischer's	<i>Eremopterix leucopareia</i>
157	Sparrow, southern grey-headed	<i>Passer diffusus</i>
158	Spoonbill, African	<i>Platalea alba</i>
159	Spurfowl, red-necked	<i>Francolinus afer</i>
160	Spurfowl, yellow-necked	<i>Pternistis leucoscepus</i>
161	Starling, Rueppell's	<i>Lamprotornis purpuroptera</i>
162	Starling, Shelley's	<i>Lamprotornis shelleyi</i>
163	Starling, splendid glossy	<i>Lamprotornis splendidus</i>
164	Starling, superb	<i>Lamprotornis superbus</i>
165	Stint, little	<i>Calidris minuta</i>

166	Stonechat, African	<i>Saxicola torquatus</i>
167	Stork, marabou	<i>Leptoptilos crumenifer</i>
168	Stork, saddle-billed	<i>Ephippiorhynchus senegalensis</i>
169	Sunbird, collared	<i>Hedydipna collaris</i>
170	Sunbird, eastern double-collared	<i>Cinnyris mediocris</i>
171	Sunbird, forest double-collared	<i>Cinnyris fuelleborni</i>
172	Sunbird, hunter's	<i>Chalcomitra hunteri</i>
173	Sunbird, miombo double-collared	<i>Cinnyris manoensis</i>
174	Sunbird, scarlet-chested	<i>Chalcomitra senegalensis</i>
175	Swallow, barn	<i>Hirundo rustica</i>
176	Swift, African palm	<i>Cypsiurus parvus</i>
177	Swift, white-rumped	<i>Apus caffer</i>
178	Tchagra, black-crowned	<i>Tchagra senegala</i>
179	Teal, Hottentot	<i>Anas hottentota</i>
180	Teal, red-billed	<i>Anas erythrorhyncha</i>
181	Tern, gull-billed	<i>Gelochelidon nilotica</i>
182	Thick-knee, water	<i>Burhinus vermiculatus</i>
183	Tinkerbird, red-fronted	<i>Pogoniulus pusillus</i>
184	Turaco, Hartlaub's	<i>Tauraco hartlaubi</i>
185	Vulture, Egyptian	<i>Neophron percnopterus</i>
186	Vulture, lappet-faced	<i>Torgos tracheliotos</i>
187	Vulture, palm-nut	<i>Gypohierax angolensis</i>
188	Vulture, Rueppell's	<i>Gyps rueppellii</i>
189	Vulture, white-backed	<i>Gyps africanus</i>
190	Wagtail, African pied	<i>Motacilla aguimp</i>
191	Wagtail, grey	<i>Motacilla cinerea</i>
192	Wagtail, yellow	<i>Motacilla flava</i>
193	Weaver, lesser-masked	<i>Ploceus intermedius</i>
194	Weaver, Red-billed	<i>Bubalornis niger</i>
195	Weaver, rufous-tailed	<i>Histurgops ruficaudus</i>
196	Weaver, speckle-fronted	<i>Sporopipes frontalis</i>
197	Weaver, Speckled	<i>Sporopipes frontalis</i>
198	Weaver, village	<i>Ploceus cucullatus</i>
199	Weaver, White buffalo	<i>Dinemellia dinemelli</i>
200	Wheatear, Abyssinian	<i>Oenanthe lugubris</i>
201	Wheatear, capped	<i>Oenanthe pileata</i>
202	Wheatear, northern	<i>Oenanthe oenanthe</i>
203	Wheatear, Schalow's	<i>Oenanthe schalowi</i>
204	Wood-dove, emerald-spotted	<i>Turtur chalcospilos</i>
205	Woodpecker, bearded	<i>Dendropicor namaquus</i>

The Amur Falcons (*Falco amurensis*) at Doyang Reservoir and Pangti Village In Wokha District, Nagaland

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Referee: Prof. Satish Pande.



This visit was on my mind for a few years ever since I watched the video titled “The Race to Save the Amur Falcon” by Conservation India. A recent news paper report confirming the arrival of the Amur Falcons on 13 Oct 2017 at Doyang Reservoir was the trigger point and has set me working out the finer details for this all important meeting.

We set out from Dimapur post lunch on 28 October and drove through Kohima and Wokha to reach Pangti village located on the edge of the Doyang Reservoir. We retired for the night at the residence of Mr. Mhonjan one of the home stays earmarked for visitors. A boat man cum guide Mr Lipithung met us at 3.30AM on the D-Day to drive us to the roosting point. On reaching the roosting site at around 4.30 AM we could see the silhouettes of the falcons milling around the trees. As the sun got brighter it was truly enchanting to see thousands of Amur Falcons taking to the skies and flying all around us. We spent the next four hours or so admiring this spectacle and enjoying their presence all around us.

The birds were first sighted in 2001 and thereafter kept growing in numbers probably attracted by the abundant food reserves created as the dam filled up towards completion of the project in 2010. Owing to lack of awareness for conservation of wild life the villagers-hunters by tradition began to hunt the birds for delicacies. By 2006 this had gone commercial and the birds were trapped in large numbers and traded in nearby towns. As the massacre of these birds unfolded to rest of India and the world community, urgent measures were put in place to preserve these birds and the efforts of all agencies involved bore fruit. I was glad to see those who were busy hunting these birds prior to 2012 have become protectors of these migrants. A local body called the Amur Falcon Roosting Area Union (AFRAU) was formed to protect



these birds every season. This is by far one of the greatest success stories in conservation of wild life in India.

In 2013, a scientific team satellite tagged three birds and named them Pangti, Wokha and Naga to collect data to understand these birds and their journey to Southern Africa. Bird named Pangti returned the following year to roost again at the Duyong Reservoir. A total of 8 birds have been tagged so far of which one female falcon named Longleng is still active. This bird after having roosted in Manipur this time has set out on 13 Nov and reached Somalia on 17 Nov 2017 covering almost 5000 km in 5 days. As on 04 Dec 2017 it was located in Central Tanzania and a complete trip profile and migration routes taken by these birds can be sought on www.satellitetracking.eu

As per the reports of the President of the Amur Falcon Roosting Area Union', Shri. N Thungbemo Shitri, the birds have been seen roosting at Longleng, Hakhizhe and Phom areas in Nagaland apart from the Duyong Reservoir. They have been found in

large numbers in Manipur and Meghalaya too. The last batch have left Duyong reservoir on the 26 November 2017. For further details and trip planning purposes Mr. Shitri can be contacted at 9612913625, 8837081349, 8974574574 and 8787647746.



Sighting of Ashy Woodswallow (*Artamus fuscus*) (Vieillot, 1807) from Manudevi Forest of Satpuda ranges, Jalgaon district, Maharashtra.

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Key words-

Ashy woodswallow, Manudevi forest, Satpuda, Jalgaon district.

Abstract-

Introduction-

Manudevi forest (21° 17' 14" N , 75° 34' 2" E) is famous for its ancient temple of Manudevi which dates back to 13th century. It is believed that this temple was built by Hemadri Pandit. Historical relics of an ancient civilization are also found in the vicinity of this ancient temple. It is said that this region was once ruled by a Gawali king who owned cattle. Manudevi forest, situated in western part of Satpuda forest ranges of Jalgaon district is included in Yawal forest division of Jalgaon. This is a tropical dry deciduous forest dominated by *Tectona grandis* (Saag), *Boswellia serrata* (Salai), *Hardwickia binata* (Anjan) intermingled with *Bridelia retusa* (Asana) and *Garuga pinnata* (Kakad). This forest provides good habitat for many bird species like flycatchers, warblers, owls and eagles. On Manapuri lake migratory bird species like Ruddy Shelduck (*Tadorna ferruginea*), Baillons crane (*Porzana pusilla*) are seen every year in winter.

Jalgaon district has various habitats viz. deciduous forest, scrub and thorny jungle, grassland, wetlands, etc. Therefore flora and fauna of Jalgaon district is rich underlined by presence of apex carnivore Bengal Tiger (*Panthera tigris*) in Satpuda forest ranges. The forest has a healthy food web including mammals, aves, reptiles, butterflies and. There are some checklists published by birdwatchers from this region such as Uzagare (2013), Patil (2016), Mahajan et al (2013) etc. Present paper reports Ashy Woodswallow (*Artamus fuscus*)(Vieillot, 1807) as an addition to the checklist of Khandesh region.



Materials and Methods-

Field observations were made using binoculars and digital camera was used to take record shots. Field guides and literature and e-Bird app were used to confirm identity of the bird and to confirm known range of its distribution. Nearest GPS co-ordinates were fixed using Google maps and GPS enabled digital cameras. Time and date of discoveries were recorded by observers and were also extracted from photographic data. Present Bird Survey was carried on 18th of December 2016 in Manudevi forest ranges.

Results-

After a hectic day of birdwatching on 18th December 2016 with not much bird activity we decided to return home. On our way back we stopped at the percolation lake, built by forest department (21° 17' 14" N , 75° 34' 2" E) near Manapuri to have a look at birds

hawking and gliding over water. Meanwhile we noticed unusual birds chattering and flying along with flock of Green Bee-eaters (*Merops orientalis*). Prasad Sonawane took some photographs of these birds. Upon observing through binoculars and photographs and going through field guides we confirmed that the birds perched on *Bombax ceiba* tree (Katesawar) were Ashy Woodswallows *Artamus fuscus*. Adult has a stout blue-grey bill, uniform slate grey head, greyish maroon mantle, and pinkish grey under parts. In flight, shows white-tipped tail grayish white band across uppertail-coverts. Call was a harsh, shrike-like *chek , chek , chek* twittering (Grimmett et al 2011). They consume moths, butterflies and winged insects. (Ali 2002).

This was our first sighting for the region. Plum-headed Parakeets (*Psittacula cyanocphala*) were also sharing perch with Ashy Woodswallows. We continued our observation and saw a woodswallow making aerial sallies, it caught a Stripped Tiger (*Danaus genutia*)

butterfly in air and returned back to its perch for feeding. Prasad Sonawane was able to photograph this event. We observed this flock of woodswallows for the next fortnight and could record their feeding, pruning, calling and perching behaviour. Birds usually kept perched close to each other on tallest leafless branches of *Bombax ceiba* tree near water from where they were hawking for flying insects, making aerial sallies and returning back to their favourite perch where they kept poking nearby swallows with their strong bills, probably a territorial behaviour. In our next trip we only saw woodswallows gliding over forest canopy, but they did not perch on that *Bombax ceiba* tree.

We reviewed the reports from some bird watchers of Jalgaon district (Mahajan et al,2013), (Sonar G et al,2014), (Uzagare 2014), Mahajan Anil (Avifauna of Hatnur dam and its adjoining forest 2013), Patil Ashwin (Checklist of birds of Jalgaon district). This species is not reported in any of the checklist of birds of Jalgaon district. Its distribution range is also not shown in Jalgaon district or nearby areas (Grimmett et al 2011). Its nearest records are from Melghat tiger sanctuary, Amravati (Wadtkar et al). On e-bird it is not reported from this region. This clearly reveals that, this species is rare to Jalgaon district, Khandesh and to the Maharashtra. The present report is probably a new record to the avi-fauna of Jalgaon district of Maharashtra State.

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e-BirdIndia: <https://ebird.org/india/map/ashwoo2?neg=true&env.minX=28.216421875000037&env.minY=1.803550502447827&env.maxX=137.37657812500004&env.maxY=41.080927031000094&zh=true&gp=false&ev=Z&mr=1-12&bm=1&emo=12&yr=all&byr=1900&eyr=2018> accessed on 13th February 2018.

Recent Sighting of Black Storks (*Ciconia nigra*) in BR Hills Tiger Reserve, Karnataka

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(Email: rahul.poral.88@gmail.com)

Citation: Poral, Rahul and Shubhadha Prabhakar (2018).
Recent Sighting of Black Storks (*Ciconia nigra*) in BR Hills
Tiger Reserve, Karnataka.
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Referee: Pramod Deshpande.



- **Name of species-** Black Stork
- **Scientific Name-** *Ciconia nigra*
- **Status-** Least Concern. (IUCN Red List).
- **Date of sighting-** 24th February 2018.
- **Time of sighting-** 9:13 AM.
- **Weather parameters-** Sunny.
- **Number of times sighted-** Once.
- **Number of birds-** 4.
- **Gender of bird-** Uncertain. 2 adults, 2 juveniles.
- **Locality-** BR Hills Tiger Reserve. We were on the K.GUDI Government Safari. The exact location is Anni Kere - a place inside the jungle. About 6-7 km from the entry gate.
- **Habitat description-** Large water body surrounded by short grass and jungle with bank bund on the far side and plain on the other sides.
- **Distance from human habitation-** Approximately 15-20 km.
- **Any other bird/animal associates-** 1 Striped-necked mongoose, 2 wild boar, 1 Red-wattled Lapwing
- **Bird behaviour-** There were 4 Black Storks. My viewing distance was about 80 m from the safari jeep. One stork was on the bank, the other three were wading in water. While the bank stork was still, the other three were feeding in water. We observed them for 10 minutes.
- **Threats to the habitat-** None.
- **Photographs-** Attached.
- **Previous records-** There are no previous records for Black Storks in BRT Tiger Reserve. I have verified this on e-bird.

Recent sighting of Grey-headed Lapwing (*Vanellus cinereus*) from Mudflats of Thane creek near Bhandup pumping station, Mumbai, Maharashtra, India

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Citation: Adhikari, Omkar (2018). Recent sighting of Grey-headed Lapwing (*Vanellus cinereus*) from Mudflats of Thane creek near Bhandup pumping station, Mumbai, Maharashtra, India

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Copyright: © Adhikari, O. (2018)

Referee: Pramod Deshpande.



- **Name of species-** Grey headed lapwing (*Vanellus cinereus*)
- **Status-** Least Concern (IUCN 3.1)
- **Date of sighting-** 4 February 2018.
- **Time of sighting-** 11.15 a.m.
- **Weather parameters-** Sunny.

- **Number of times sighted-** Once.
- **Number of birds-** One. The Grey headed lapwing (*Vanellus cinereus*) was in non-breeding plumage. It was foraging on mudflats. I identified this bird from the grey head, neck and breast with diffused black border, dark yellow legs, Yellow bill with black tip and Black band on tail.
- **Gender of bird-** Adult in non breeding plumage.
- **Locality-** Mudflats of Thane creek near Bhandup pumping station (19°08'02.3"N 72°57'44.2"E), Mumbai, Maharashtra, India.
- **Habitat description** – Open Mudflats on low tide.
- **Distance from human habitation** – 20 M.
- **Any other bird/animal associates-** No.
- **Bird behaviour-** Foraging on mudflats.
- **Threats-** Habitat loss.
- **Photographs-** Attached.
- **Previous records-** According to following references, similar reports from nearby area like Dombivili and Kalyan in 2011 & 12. Earlier, The bird has been reported from elsewhere in the state, including, Gondia¹, Amravati¹, Jalgaon¹, Chiplun^{1,2}, Nashik³.

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Recent Sighting of Painted Spurfowl (*Galloperdix lunulata*) in Hampi, Karnataka

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Referee: Prof. Satish Pande.



- **Name of species-** Painted Spurfowl
- **Scientific Name-** *Galloperdix lunulata*.
- **Status-** Least Concern. (IUCN Red List, 2016).
- **Date of sighting-** 4th January 2018.
- **Time of sighting-** 3:20 PM onwards
- **Weather parameters-** Slightly cloudy
- **Number of times sighted-** Twice
- **Number of birds-** 4

- **Gender of bird-** Three males and one female
- **Locality-** Daroji Bear Sanctuary.
- **Habitat description-** Rocky terrain with big and small boulders, dry grass, short trees.
- **Distance from human habitation-** Approximately 1-2 km.
- **Any other bird/animal associates-** 3 sloth bears, 12 peacocks, 2 grey francolins, 1 laughing dove, about 10 bonnet macaques, 2 squirrels, and 1 mongoose were found at the time when the spurfowls were seen.
- **Bird behaviour-** First two birds (one male and a female) came out walking over a small boulder, walked around pecking on the grains on the ground. They disappeared behind the same boulder after a lot of peacocks started coming to the same area (that need not be the reason for them to leave though). Then another 2 (both males) came from the dry grass land from the opposite direction. They were walking around unmindful of the other beings around.
- **Threats to the habitat-** No threat, as the Bear Sanctuary is protected.
- **Photographs-** Attached.
- **Previous records-** Records from Daroji Bear Sanctuary in eBird:
2017-11-11: Subhadeep Ghosh; 2017-08-12: Praveen Eshwarappa ; 2017-07-28: Pooja Rathod; 2017-07-28: Kalyan Varma; 2017-03-24: Hemant Byatroy ; 2017-01-26: Mohith Shenoy; 2017-01-26: Venkatesh Prasad; 2017-01-26: Adithya Bhat; 2017-01-20: Kaustubh Rau; 2017-01-06: Harish Chandra; 2017-01-06: Syed Muzamil; 2016-01-22: Bhalachandra Shirolkar; 2015-07-09: david Stanton; 2015-05-23: Arpit Bansal; 2015-03-15: Stefan Hirsch; 2015-01-04: Chris Bowden; 2014-02-03: Bhagyashree Ingle; 2014-02-03: Kulbhushansingh Suryawanshi ; 2012-12-29: Krishna Murthy; 2012-10-03: Rohan Chakravarty; 2012-09-30: Santosh Bs;

SIGHTING RECORD OF WESTERN REEF EGRET (*Egretta gularis*) ROM AKOLA, MAHARASHTRA.

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*Near Z.P School, At post- Kumbhari, Tehsil- Akola District- Akola, Maharashtra.

Citation: Shendokar, Shirish and Mangesh Tayade (2018).
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Referee: Pramod Deshpande.



Kumbhari Lake is a good birding place near Akola. It is about 10 km away from the district headquarter and is situated at 20°39'59"N latitude and 77°4'36"E longitude near Kumbhari village. It supplies water to nearby villages and M.I.D.C. Akola. During regular bird watching we saw a single Western Reef Egret at Kumbhari Lake at 8 am on 20 November 2017. The bird appeared similar to Grey Heron from a long distance. When we moved closer to the bird and observed it carefully from binoculars, with the help of field guides (Rasmussen & Anderton 2005), (Grimmit & *et.al* 2013) we concluded that it was a Western Reef Egret. Fortunately we could take record photograph of the bird. Western Reef Egret remained there at Kumbhari Lake for whole day. After observing this in morning we return back by 10.30 am. We again visited Kumbhari



Lake at 5 o'clock in evening when the bird was still foraging. Next day we could not see the bird.

Western Reef Egret is a medium sized heron and it is also called Western Reef Heron. It is a resident species of west and South East coast of India. It's a typical coastal bird occurring mainly on rocky or sandy shores and reefs, but is also found around estuaries, mudflats, mangroves, tidal creeks and lagoons. Its food includes fish, crustaceans and mollusks. It shows two morphs one is completely white resembling Little Heron and other is gray. Immature dark morph is lighter grey than adult. It is a least concern species in IUCN (International Union for Conservation of Nature) red list. This may be a vagrant sighting. As per our conclusion some of the water bird and waders do local migration, during this

local migration birds migrate in mixed flocks, which could be the reason of our sighting of Western Reef Egret on inland water body.

It was the first sighting of this bird from Akola district and second sighting record from Vidarbha province of Maharashtra. It was once sighted at Nagpur during Bird race. This is a coastal bird which is rarely found in inland waters. Single Western Reef Egret was sighted at Suki Dam backwater, Jalgaon Maharashtra on 20th December 2015. Few sighting records are available for Goa and Karnataka on ebird website. Other than these no sighting records and other distribution details of this bird in inland waters are available so this is one of the important sightings.

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Recent Sighting of: Great knot (*Calidris tenuirostris*) at Panhala, Maharashtra

Abhijeet Avate

(Email: dadasaur@gmail.com)

Citation: Avate, Abhijeet (2018). Recent Sighting of: Great knot (*Calidris tenuirostris*) at Panhala, Maharashtra. *Ela Journal of Forestry and Wildlife* Vol. 6(4) & 7(1): 458

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31 March 2018

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Referee: Pramod Deshpande



- **Name of Species:** Great Knot
- **Scientific Name:** *Calidris tenuirostris*
- **Status:** Endangered , IUCN Red List 2017
- **Date of sighting:** 14 Aug 2016
- **Time of sighting:** 1630 Hrs
- **Weather parameters:** Sunny.
- **Number of times sighted:** Once.
- **Number of birds:** Single.
- **Gender of bird:** Unknown.
- **Locality:**At Masai Plateau, Panhala.
- **Habitat description:** Rocky Table top plateau with water bodies and grass land
- **Distance from human habitation:** 2 km.
- **Any other bird/animal associates:** NA
- **Bird Behaviour:** Feeding near wet rocks
- **Threats to the habitat:**Habitat modification, Increasing human traffic
- **Photographs:**Attached. Photos: Ajay Avate
- **Previous records:** None from the same area.

MORE INFORMATION:

The bird was foraging around a fresh water pond. It was sighted on a table top plateau at an altitude of 960 m (3150ft) and 100 km (straight line) from closest coast. After breeding, the great knot departs the breeding grounds and begins its migration south to warmer wintering grounds, which it normally arrives at between August and October. It is the authors observation that the Great knot used this location as a stop-over site during the long journey, where it can feed and restore its energy, enabling the bird to continue with its migration.

Sightings of Stork-billed Kingfisher (*Pelargopsis capensis*) at Ajanti Dam, Hinganghat, Dist. Wardha, Maharashtra.

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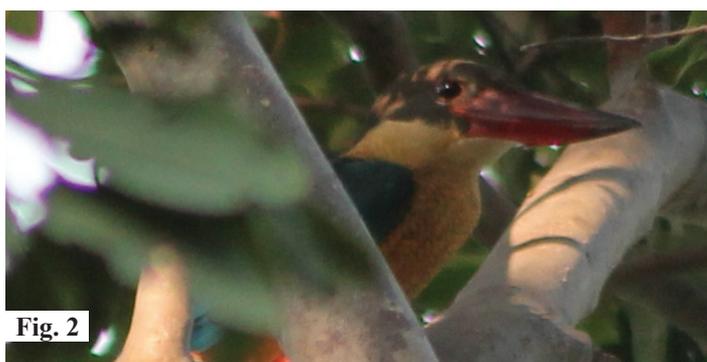
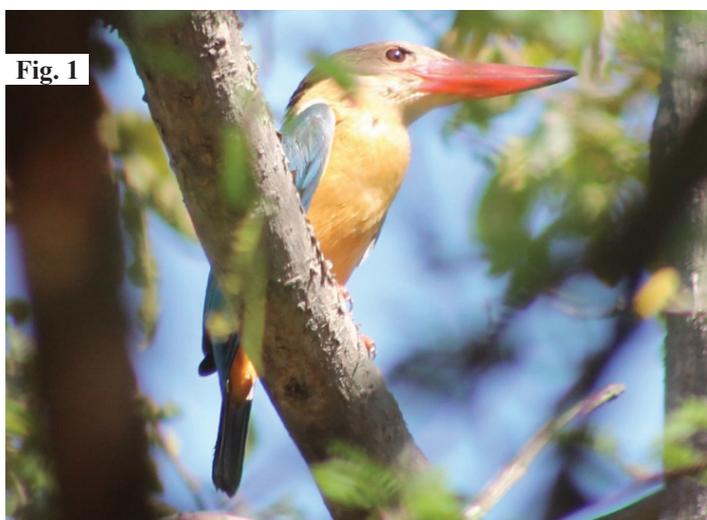
Citation: Bobade, Sumedh (2018). Sightings of Stork-billed Kingfisher (*Pelargopsis capensis*) at Ajanti Dam, Hinganghat, Dist. Wardha, Maharashtra. *Ela Journal of Forestry and Wildlife* Vol. 6(4) & 7(1): 459

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Referee: Ram Mone.



- **Name of species:** Stork-billed Kingfisher
- **Scientific name:** *Pelargopsis capensis*
- **Status:** Least concern
- **Date of sighting:** 25 February 2017
- **Time of sighting:** 9 to 11 am
- **Weather parameter:-** Sunny
- **Number of time sighted:-** Twice
- **Number of birds:-** Single
- **Gender of bird:-** Unidentified
- **Locality:-** Ajanti Dam, Hinganghat, Dist. Wardha, Maharashtra.
- **Brief description:-** Olive brown head, brightly colored bird with large size and enormous, compressed blood red bill. Blue wings and tail.
- **Habitat description:-** Wooded habitat near lakes, rivers and ponds.
- **Distance from human habitation:-** Approximately 1 km.
- **Bird behavior:-** Perching on tree stem.
- **Threats:-** Habitat destruction, fishing area.
- **Photographs:-** Attached. Camera:- Canon 1100

Fig. 1:- Stork-billed Kingfisher perching near water body at Ajanti Dam, Hinganghat, Dist. Wardha.

Fig. 2:- Stork-billed Kingfisher perching near river at Ajanti Dam, Hinganghat, Dist. Wardha.

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