

Birds Around Mula River Right Bank Canal in Ahmednagar District of Maharashtra (India)

Prabhat Sunil Mhaske

Abstract

Ornithology is a Greek word: ornitha means chicken and logos mean a science. It is a branch of Zoology or Biology concerned with the scientific study of birds, creatures belonging to class Aves. (1) Aristotle was perhaps the first person who wrote on ornithology and mentions more than 170 birds. (2) Carolus Linnaeus (1758) was the pioneer in developing a classification system for birds and animals. His scientific classification system, with some modification is still being used. Dr Salim Ali (1896 - 1987) was India's most well-known Ornithologist and bird watcher. He is known as the "Birdman of India". (3) India is one of the best places in the world to see the birds. The extant and recently extinct species recorded within the political limits of the Republic of India as defined by the Indian government are known to have around 1266 species as of 2016. (4) I have taken the pictures of native Birds around Mula River Right Bank Canal in Ahmednagar district of Maharashtra (India). While doing these photographs I tried to study the scientific knowledge regarding them. One alarming signal came in my mind that these birds are not cared by anybody, they are totally ignored, there population and species may be in downhill. There are so many species of bird in same area, few of them I have mentioned in the study.

Keywords: Birds; Data; Mula River Right Bank; Population.

Introduction

Ornithology is a Greek word: ornitha means chicken and logos mean a science. It is a branch of Zoology or Biology concerned with the scientific study of birds, creatures belonging to class Aves [1]. Aristotle was perhaps the first person who wrote on ornithology and mentions more than 170 birds [2].

Carolus Linnaeus (1758) was the pioneer in developing a classification system for birds and animals. His scientific classification system, with some modification is still being used. Dr Salim Ali (1896 - 1987) was India's most well-known Ornithologist and bird watcher. He is known as the "Birdman of India" [3].

India is one of the best places in the world to see the birds. The extant and recently extinct species recorded within the political limits of the

Author's Affiliation: B.A.(Economics), B.A. (Public Administration), GCPP. Certificate course in basic Ornithology (Abasaheb Garware College and ELA Foundation, Pune).

Reprint's Request: Prabhat Sunil Mhaske, 602, A wing, Kamaldeep Plaza, Navi Peth, Near Agrawal Classes, Pune, Maharashtra 411030, India.

E-mail: prabhatmhaske@gmail.com

Received on 28.02.2018, **Accepted on** 02.04.2018

Republic of India as defined by the Indian government are known to have around 1266 species as of 2016 [4].

I have taken the pictures of native Birds around Mula River Right Bank Canal in Ahmednagar district of Maharashtra (India). While doing these photographs I tried to study the scientific knowledge regarding them. One alarming signal came in my mind that these birds are not cared by anybody, they are totally ignored, there population and species

may be in downhill. There are so many species of bird in same area, few of them I have mentioned below:



Ashy Prinia (ashy wren) [5]

- *Scientific Classification*
 - ⇒ Kingdom: Animalia
 - ⇒ Phylum: Chordata
 - ⇒ Class: Aves
 - ⇒ Order: Passeriformes
 - ⇒ Family: Cisticolidae
 - ⇒ Genus: Prinia
 - ⇒ Species: P. socialis
- Small warbler.
- Resident breeder in the India, Nepal, Bangladesh, Bhutan, Sri Lanka and western Myanmar.
- Common bird in urban gardens and farmland.
- Small size, distinctive colors and upright tail.
- Distinct breeding and non-breeding plumage.
- 13–14 cm length.
- Short rounded wings
- Longish graduated cream tail tipped with black sub terminal spots.
- Gray crown, Strong legs.
- Found single or in pairs.
- Insectivorous.
- Call- repetitive tchup, tchup, tchup or zeet-zeet-zeet and nasal tee-tee-tee.
- Builds its nest close to the ground in a shrub or tall grass and lays 3–5 eggs.

- Eggs hatch in 12 days.
- Breeding season after the monsoons.
- Both the male and the female take part in incubation.



Pied myna (Asian pied starling) [6]

- *Scientific classification-*
 - ⇒ Kingdom: Animalia
 - ⇒ Phylum: Chordata
 - ⇒ Class: Aves
 - ⇒ Order: Passeriformes
 - ⇒ Family: Sturnidae
 - ⇒ Genus: Gracupica
 - ⇒ Species: Gracupica contra
- Found in the Indian subcontinent and Southeast Asia.
- Marked in black and white and has a yellowish bill with a reddish bill base.
- Have bare skin around eye is reddish.
- Upper body, throat and breast are black.
- Cheek, lores, wing coverts and rump are contrastingly white.
- Both sexes are similar in plumage
- Young birds have dark brown in place of black.
- Flight is slow and butterfly-like on round wings.
- Areas with access to open water.
- Found in small groups,
- Call -whistles, trills, buzzes, clicks, and warbling calls.

- Both sexes sing.
- Forage in fields, lawns and on open ground feeding on grains, fruit, insects, earthworms and mollusks.
- Breeding season in India is spread from March to September
- Nest in a large tree (banyan, mango, jackfruit, rosewood)
- Clutch: four to six glossy blue eggs.
- Eggs hatch after 15 days.



Baya weaver [7]

- Scientific classification-
Name- *Ploceus philippinus*
Kingdom: Animalia
Phylum: Chordata
Class: Aves
Order: Passeriformes
Family: Ploceidae
Genus: *Ploceus*
- Common, Weaver bird
- Found in Indian Subcontinent and Southeast Asia.
- Social and gregarious birds
- Known for their hanging retort shaped nests woven from leaves.
- Sparrow-sized (15 cm)
- Both males and females resemble female house sparrows.
- Have a stout conical bill and a short square tail.
- Non-breeding males and females- look alike, dark brown streaked fulvous buff above, plain (unstreaked) whitish fulvous below, eyebrow long and buff colored, bill is horn colored and no mask.
- Breeding males -bright yellow crown, dark brown mask, blackish brown bill, upper parts are dark brown streaked with yellow, with a yellow breast and cream buff below.
- Feed on wild grasses such as Guinea grass, insects, butterflies, small frogs, geckos and mollusks.
- Calls are a continuous chit-chit.
- Wheezy cheee-eee-ee - produced by males in a chorus
- breeding season of the baya -monsoons
- Nests-
 - ⇒ Nest colonies are usually found on thorny trees or palm fronds
 - ⇒ Nests are built near water or hanging over water where predators cannot reach easily.
 - ⇒ Nest in colonies up to 20-30, close to the source of food, nesting material and water.
 - ⇒ Baya weavers are woven nests constructed by the males.
 - ⇒ Are pendulous, retort-shaped
 - ⇒ With a central nesting chamber and a long vertical tube that leads to a side entrance to the chamber.
 - ⇒ Woven with long strips of paddy leaves, rough grasses and long strips torn from palm fronds
 - ⇒ Males take about 18 days to construct the complete nest.
 - ⇒ Partially built before the males begin to display to passing females by flapping their wings and calling while hanging from their nests
 - ⇒ Females inspect the nest and signal their acceptance of a male
 - ⇒ Once a male and a female are paired, the male goes on to complete the nest by adding the entrance tunnel.
 - ⇒ Males are solely in charge of nest building.
 - ⇒ Female partners may join in giving the finishing touches, particularly on the interiors.
 - ⇒ Females prefer nests high in trees, those over dry land, and those on thin branches.
 - ⇒ Males build many partial nests and begin courting females.
 - ⇒ Male finishes the nest only after finding a mate.
- Both males and females are polygamous.
- Female lays 2 to 4 white eggs and incubates them for 14 to 17 days
- Chicks leave the nest after 17 days.
- After mating with a female the male typically court other females at other partially constructed nests.
- Females are capable of breeding after a year while males take half a year longer
- Extremely intelligent, obedient and docile.



Oriental magpie-robin [8]

- Scientific classification-
Kingdom: Animalia
Phylum: Chordata
Class: Aves
Order: Passeriformes
Family: Muscicapidae
Genus: Copsychus
Species- *C. saularis*
- National bird of Bangladesh.
- Small passerine bird
- Distinctive black and white birds with a long tail that is held upright as they forage on the ground or perch conspicuously.
- Occurs in Indian subcontinent and Southeast Asia
- Common birds in urban gardens as well as forests.
- Known for their songs.
- Long tail-held cocked upright.
- Male - black upperparts, head and throat apart from a white shoulder patch with White under parts and the sides of the long tail.
- Females - grayish black above and grayish white
- Young birds have scaly brown upperparts and head
- Breed -March to July in India
- Males sing from high perches during courtship.
- Display of the male -puffing up the feathers, raising the bill, fanning the tail and strutting.
- nest in tree hollows or niches in walls or building,
- Eggs are incubated by the female alone for 8 to 14 days.
- "Little concern" globally.



Siberian stonechat (Asian stonechat) [9]

- Scientific classification-
Kingdom: Animalia
Phylum: Chordata
Class: Aves
Order: Passeriformes
Family: Muscicapidae
Genus: *Saxicola*
Species: *Saxicola maurus*
- widespread and common, found in Asia, Siberia south to the Himalaya, China, Turkey and Russia
- Five or six subspecies.
- Insectivorous.
- Darker above and paler below
- Male- during breeding plumage has black upperparts and head with white collar, scapular patch and rump, and a restricted area of orange on the throat
- Female: pale brown upperparts and head, white neck patches (not a full collar), and a pale, unstreaked pinkish-yellow rump.
- Male has a clicking call.

Indian roller [10]



- Scientific classification-

Kingdom: Animalia

Phylum: Chordata

Class: Aves

Order: Coraciiformes

Family: Coraciidae

Genus: Coracias

Species: Coracias benghalensis

- Very common in the populated plains of India
- Hindi name is neelkanth-blue throat-a name associated with Shiva
- Found in Iraq, Arabia and India
- Used as caught and released during festivals such as Dussera
- State bird of Andhra Pradesh, Odisha, Karnataka and Telangana
- Member of the roller family of birds, not migratory,
- Subspecies – 1)C. b. benghalensis 2)Southern roller (C. b. indicus) 3) Burmese roller (C. b. affinis)
- Stocky bird about 26–27 cm long
- Breast is brownish, crown and vent are blue.
- Tail is sky blue with a terminal band of Prussian blue and the central feathers are dull green.
- Neck and throat-purplish lilac with white shaft streaks.
- Bare patch around the eye is ochre in colour.
- Long and compressed bill with a curved upper edge and a hooked tip
- Seen on bare trees or wires.
- Call of the Indian roller is a harsh crow-like chack sound.
- Capture their prey which may include insects, arachnids, small reptiles, small snakes and amphibians.
- Breeding season- March to June
- Clutch: 3-5 eggs.
- Both sexes incubate the eggs for 17 to 19 days.

Indian silverbill [11]



Indian silverbill or white-throated munia

- Scientific classification-

Kingdom: Animalia

Phylum: Chordata

Class: Aves

Order: Passeriformes

Family: Estrildidae

Genus: Euodice

Species: Euodice malabarica

- Small passerine bird
- Occurs in Pakistan, Nepal, Bangladesh, India, Sri Lanka, Iran and Israel
- Adult Indian silverbill is 11–11.5 cm long
- Conical silver-grey bill, buff-brown upperparts, white underparts, buffy flanks and dark wings. tail is black and the wings are dark
- Sexes - similar
- Feeds on seeds, insects, nectar bearing flowers
- Frequents dry open scrub, fallow land and cultivation, near water
- Constantly utter a low cheeping or chirping contact call as they forage
- Nest in winter in southern India and after summer in northern India.
- Clutch -4 to 8 white eggs

Lark [12]



- Scientific classification-

Kingdom: Animalia

Phylum: Chordata

Class: Aves

Order: Passeriformes

Superfamily: Passeroidea

Family: Alaudidae Vigors,

- Passerine birds of family Alaudidae.
- Twenty-one extant genera in the family Alaudidae
- Small- to medium-sized birds, 12 to 24 cm in length and 15 to 75 g in weight.

- Ground birds, brown plumage
- Most species build nests on the ground
- Larks incubate for 11 to 16 days.
- Kept as pets in China.

Indian peafowl [13]



- Scientific classification
 - ⇒ Kingdom: Animalia
 - ⇒ Phylum: Chordata
 - ⇒ Class: Aves
 - ⇒ Order: Galliformes
 - ⇒ Family: Phasianidae
 - ⇒ Genus: Pavo
 - ⇒ Species: Pavo cristatus
 - National bird of India in 1963.
 - Celebrated in Indian and Greek mythology
 - Krishna is depicted with a feather in his headband
 - Kartikeya (also known as Skanda or Murugan).
 - Resident breeder India.
 - Large and brightly colored bird
 - Capable of flight
 - Lives mainly on the ground in open forest or on land under cultivation
 - Feeds on berries, grains but also prey on snakes, lizards, and small rodents. loud calls
 - Male:
 - ⇒ Blue with a fan-like crest of spatula-tipped wire-like feathers elongated upper-tail covert feathers which bear colorful eyespots.
 - ⇒ Metallic blue on the crown.
 - ⇒ Feathers of the head being short and curled.
 - ⇒ Fan-shaped crest on the head is made of feathers with bare black shafts and tipped with bluish-green webbing.
 - ⇒ White stripe above the eye
 - ⇒ Crescent shaped white patch below the eye are formed by bare white skin.
 - ⇒ Sides of the head have iridescent greenish blue feathers.
 - ⇒ Back has scaly bronze-green feathers with black and copper markings.
 - ⇒ Wings are buff and barred in black and tail is dark brown
 - ⇒ Feathers end with an elaborate eye-spot.
 - ⇒ Thighs are buff colored.
 - ⇒ Length: bill to tail -100 to 115 cm and weight: 4-6 kg
- Peahen:*
- ⇒ Smaller and lack the train
 - ⇒ Have a greenish lower neck
 - ⇒ duller brown plumage
 - ⇒ Length: 95 cm and weight- 2.75-4 kg
 - ⇒ Rufous-brown head
 - ⇒ Tips are chestnut edged with green
 - ⇒ Upper body is brownish with pale mottling and tail are dark brown.
 - ⇒ Lower neck is metallic green
 - ⇒ Breast feathers are dark brown glossed with green
 - Calls - loud pia-ow or may-awe.
 - Frequency of calling increases before Monsoon
 - Calls indicate the presence of predators such as tiger.
 - Several color mutations of Indian peafowl.
 - Peafowl forage on the ground in small groups-cock and 3 to 5 hens.
 - Peafowl roost in groups during the night on tall trees
 - Peacocks are polygamous
 - Breeding season is spread out but appears to be dependent on the rains.
 - Peafowl are omnivorous and eat seeds, insects, fruits, small mammals and reptiles, small snakes
 - Lives for 23 years
 - Listed as of Least Concern by the International Union for Conservation of Nature.

Kingfisher [14]

- Scientific classification-
Kingdom: Animalia
Phylum: Chordata
Class: Aves
Order: Coraciiformes
Family: Alcedinidae
Subfamily: Alcedininae
- Known as Eurasian kingfisher, and river kingfisher
- Widely distributed over Europe, Asia, and North Africa
- Important members of ecosystems and good indicators of freshwater community health.
- Seven subspecies -A. a. ispida Linnaeus, A. a. atthis, A. a. bengalensis Gmelin, A. a. taprobana Kleinschmidt, A. a. floresiana Sharpe, A. a. hispidoides Lesson A. a. solomonensis Rothschild and Hartert
- Sparrow-sized bird, short-tailed, large-head
- Blue upperparts, orange under parts and a long bill.
- Legs and feet are bright red.
- Feeds on fish, caught by diving
- Length- 16 centimeters and weight 34–46 grams.
- Female is identical in appearance to the male.
- Flight of the kingfisher is fast, direct and usually low over water.
- Has no song.
- Nest is in a burrow excavated by both birds of the pair in a low vertical riverbank.
- Lays two to ten glossy white eggs.

Purple heron [15]

- Wading bird in the heron family
- Total Population- 270,000 and 570,000 purple herons in the world
- Scientific classification-
Kingdom: Animalia
Phylum: Chordata
Class: Aves
Order: Pelecaniformes
Family: Ardeidae
Genus: Ardea
Species: A. purpurea
- Breeds in Africa, central and southern Europe, and southern and eastern Asia.
- Large bird.
- Length: 78–97 cm , height: 70 to 94 cm , wingspan : 120–152 cm , Weight: 0.5 to 1.35 kg
- Adults bird:
 - ⇒ Forehead and crown of the head is black
 - ⇒ Dark stripe down the back of the neck that terminates in a slender, dangling crest.
 - ⇒ Head and the neck are buffish chestnut with dark streaks and lines down either side of the whole the neck.
 - ⇒ Upper parts and tail is brownish grey.
 - ⇒ Breast: chestnut brown,
 - ⇒ Beak: brownish-yellow , long, straight and powerful
 - ⇒ Iris : yellow
 - ⇒ Legs :brown at the front and yellowish behind
- Call is a harsh “frank”- more high-pitched, less noisy bird,
- Migrates in August - October and returns in March.

- Inhabits marshes, lagoons and lakes surrounded by dense vegetation.
- *Flight*: slow with neck retracted and legs extending a long way behind tail.
- Diet: fish, small mammals, amphibians, nestling birds, snakes, lizards, crustaceans, water snails, insects and spiders.
- Breeds in colonies and builds a bulky nest of dead reeds, sticks.
- Eggs are bluish-green, 56 by 45 mm, clutch is four to five eggs.
- Both parents share incubation (24 and 28 days)
- Population is decreasing slowly.

Purple swamp hen [16]



Species

1. Western swamphen, *Porphyrio porphyrio*, southwest Europe and northwest Africa
 2. African swamphen, *Porphyrio madagascariensis*, sub-Saharan continental Africa and Madagascar
 3. Grey-headed swamphen, *Porphyrio poliocephalus*, Middle East, through the Indian subcontinent to southern China and northern Thailand
 4. Black-backed swamphen, *Porphyrio indicus*, southeast Asia to Sulawesi
 5. Philippine swamphen, *Porphyrio pulverulentus*, Philippine islands
 6. Australasian swamphen, *Porphyrio melanotus*, Australia, New Zealand, and Oceania
- Scientific classification-
Kingdom: Animalia
Phylum: Chordata
Class: Aves
Order: Gruiformes
Family: Rallidae
Genus: *Porphyrio*
Species: *P. poliocephalus*
 - Occurs in Middle East, Indian subcontinent to southern China and northern Thailand.
 - Male has an elaborate courtship display, holding water weeds in his bill and bowing to the female with loud chuckles.

Red muniya [17]



- Red avadavat or strawberry finch
- Scientific classification
⇒ Kingdom: Animalia
⇒ Phylum: Chordata
⇒ Class: Aves
⇒ Order: Passeriformes
⇒ Family: Estrildidae
⇒ Genus: *Amandava*
⇒ Species: *A. amandava*
- Sparrow-sized bird
- Found in Bangladesh, India, Sri Lanka, Nepal, Pakistan, Spain, Brunei, Fiji, Egypt, Malaysia, Portugal, Puerto Rico, Singapore and Hawaii.

- Red munia diverged from the green munia about 9 million years ago.
- Habitat in the open fields mainly on flat plains, tall grasses or crops, near water
- Rounded black tail and bill is seasonally red.
- Rump is red and breeding male is red on most of the upper parts except for a black eye-stripe, lower belly and wings.
- White spots on the red body and wing feathers.
- Non-breeding male is duller, has the red-rump.
- Female -dull with less of the white spotting on the feathers
- Pairs stay together during the breeding season
- Call-low single note pseeep given in flight.
- Feeds on grass seeds , insects -termites
- Build a globular nest made of grass blades.
- Clutch- five or six white eggs
- Beak -turn red in May, darkens in November-December, turns black in April and the cycle continues.
- 18 cm in length, fast flyers.
- Bright blue upperparts, bright white underparts and a chestnut cap.
- Very long filamentous outermost tail feathers, which trail behind like two wires
- Immature birds lack tail wires.
- Both sexes are similar in appearance but female has shorter wires.
- Juveniles have a brown crown, back and tail. The Asian form, H.S. filifera, is larger and longer-tailed than the abundant African H.S. Smithii.
- Feed on insects and flies.
- Half-bowl nests are lined with mud collected in the swallows' beaks.
- Clutch-three to four eggs.

Wire-tailed swallow [18]



- Scientific classification-
 - ⇒ Kingdom: Animalia
 - ⇒ Phylum: Chordata
 - ⇒ Class: aves
 - ⇒ Order: Passeriformes
 - ⇒ Family: Hirundinidae
 - ⇒ Species: Hirundo smithii
- Small passerine bird in swallow family.
- Two subspecies:
 - ⇒ H. S. smithii (Africa)
 - ⇒ H. S. filifera (southern and southeastern Asia)
- Found in open country near water and human habitation.

White-browed wagtail [19]



White-browed wagtail, large pied wagtail, dhobin, and washerwoman

- Scientific classification-
 - ⇒ Kingdom: Animalia
 - ⇒ Phylum: Chordata
 - ⇒ Class: Aves
 - ⇒ Order: Passeriformes
 - ⇒ Family: Motacillidae
 - ⇒ Genus: Motacilla
 - ⇒ Species: Motacilla maderaspatensis
- Medium-sized bird, 21 cm length.
- Largest member of wagtail family.
- Slender bird, long, constantly wagging tail
- Black upperparts, head and breast, with a white supercilium and large white wingbar

- Female has the black less intense than in the male
- Juveniles are like the females brown-grey where the adult is black
- Resident breeder in India , found in open freshwater wetland habitats.
- Seen in pairs or small groups near open water
- Call in the morning's wheezy "wheech".
- Breeding season -March to October.
- cup-shaped nest placed on the ground or rocks in a hole, ledge or mud bank
- Nest is made of grass, roots, algae and located close to water.
- Clutch-Three to five eggs.
- While taking this photographs and collecting information, I came to know very important question -Why the birds are in danger zone? The following causes I get from various sources, which everyone has to think in positive way.
 - ⇒ Changes in the physical environment
 - ⇒ Habitat fragmentation
 - ⇒ Chemical contamination
 - ⇒ Exploitation of birds for human use
 - ⇒ Trafficking
 - ⇒ Rivers getting flooded during breeding season nests in colonies on low sandbanks are destroyed.
 - ⇒ Non-native bird species have become invasive for many native bird species.

References

1. Newton Ian. Population limitation in birds. Academic Press. 1998.p.2 . ISBN 0-12-517366-0.
2. "Biography of Aristotle". *Biography.com*. Retrieved 12 March 2014.
3. Perrins, Christopher. Obituary: Salim Moizuddin Abdul Ali. *Ibis*. 1988;130(2):305-06.
4. Praveen, Jayadevan, Jaypal, Rajah, Pittie, Aasheesh. A checklist of the birds of India, *Indian Birds*. 2016;11 (5&6):113-72.
5. Bird Life International (2012). "Prinia socialis". IUCN Red List of Threatened Species. Version 2013.2. International Union for Conservation of Nature. Retrieved 26 November 2013.
6. Rasmussen, P.C.; Anderton, J.C. Birds of South Asia. The Ripley Guide. Volume 2. Washington DC and Barcelona: Smithsonian Institution and Lynx Edicions. 2012.p.583.
7. Salim Ali. The Book of Indian Birds (Third ed.). Oxford University Press. 2002.pp.64,283.
8. Sheldon FH, Lohman DH, Lim HC, Zou F, Goodman SM, Prawiradilaga DM, Winker K, Braile TM, Moyle RG. Phylogeography of the magpie-robin species complex (Aves: Turdidae: Copsychus) reveals a Philippine species, an interesting isolating barrier and unusual dispersal patterns in the Indian Ocean and Southeast Asia (PDF). *Journal of Biogeography*. 2009;36(6):1070-83.
9. *Bird Life International (BLI)*. *Saxicola torquatus*. IUCN Red List of Threatened Species. Version 2008. International Union for Conservation of Nature. Retrieved 12 May 2009.
10. Whistler Hugh. Popular handbook of Indian birds (4th ed.). Gurney and Jackson, London. 1949.pp.293-295.
11. Ali S; SD Ripley. Handbook of the birds of India and Pakistan. Volume 10 (2nd ed.). Oxford University Press. 1999.pp.110-12.
12. Alstrom, Per; Barnes, Keith N.; Olsson, Urban; Barker, F. Keith; Bloomer, Paulette; Khan, Aleem Ahmed; Qureshi, Masood Ahmed; Guillaumet, Alban; Crochet, Pierre-Andre; Ryan, Peter G. Multilocus phylogeny of the avian family Alaudidae (larks) reveals complex morphological evolution, non-monophyletic genera and hidden species diversity. *Molecular Phylogenetics and Evolution*. 2013;69:1043-56.
13. Ali S; Ripley, SD. Handbook of the birds of India and Pakistan. 2(2nd ed.). Oxford University Press. 1980.pp.123-126. ISBN 0-19-562063-1.
14. Moyle, Robert G. A molecular phylogeny of kingfishers (Alcedinidae) with insights into early biogeographic history" (PDF). *Auk*. 2006;123(2):487-99.
15. Hancock, James; Kushlan, James A. The Herons Handbook. Bloomsbury Publishing. 2010.pp.108-110.
16. Floyd, Ted (13 Feb 2013). "#977, Purple Swampphen!". American Birding Association. Retrieved 13 Feb 2013.
17. Harrison C.J.O. The affinities of the Red Avadavat, *Amandava amandava* (Linn.). *Bulletin of the British Ornithologists' Club*. 1962;82:126-32.
18. Stevenson Terry; Fanshaw John. Birds of East Africa: Kenya, Tanzania, Uganda, Rwanda, Burundi. London, UK: A&C Black. 2014.p.294. Retrieved 28 August 2014.
19. Voelker Gary. Systematics and historical biogeography of wagtails: Dispersal versus vicariance revisited. *Condor*. 2002;104(4):725-39.