

Exotic birds in wildlife trade in India: An overview of the growing phenomenon



African Grey Parrots

Background

The exotic pet trade in India has grown with the main demand for birds, particularly those belonging to the parrot family including macaws and cockatoos. Since there is a complete ban on trade in all wild Indian bird species, interest has shifted to exotic birds, which has led to some serious conservation concerns.

India's Wildlife (Protection) Act, 1972 (WPA), is only applicable to wild Indian bird species and nearly 1,200 species are included in Schedules I to IV of the Act. The Act does not include any foreign or exotic (non-native) bird species. Since trade in non-native species does not come under the ambit of the WPA, it allows traders and breeders to own, breed and trade in rare exotic bird species with ease in India.

This article highlights some worrying aspects concerning the exotic bird trade in India and stresses the need to formulate policies to manage and regulate the exotic bird trade so it doesn't impact on wild populations in their native countries.

Legal Status: Indian bird species

India's Wildlife (Protection) Act (WPA), 1972, prohibits the hunting, trapping, trade or any other forms of exploitation of all wild Indian bird species, excluding the House Crow *Corvus splendens* which is listed as "Vermin" under the Act and an exception for domestic trade in naturally shed tail feathers of the Indian Peafowl *Pavo cristatus*. In 1990, India banned the export of all live native birds and a year later, in 1991, the ban was further imposed on domestic trade in wild Indian birds (Ahmed 1997). Therefore today, except for the House Crow and naturally shed tail feathers of the Indian Peafowl, no other native wild bird species can be trapped or exploited in any form including utilisation of eggs or feathers. This protection is further extended under the WPA to migratory bird species that visit India every year.

Legal Status: Exotic bird species

Exotic or non-native bird species refers to any avian species that is not found in the wild within the geographical limits of India and therefore is not recognised as part of the country's avifauna.

The import or export of any exotic bird or any other wild animal may be subject to CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) regulations if the species concerned is listed within the Convention's Appendices. Import of species listed in Appendix I is generally not allowed, but an individual, organisation or zoo is permitted to import other CITES species listed when there is an import licence along with a recommendation letter and a No Objection Certificate (NOC) from the Chief Wildlife Warden of the concerned State Government fulfilling the provisions of CITES and the EXIM policy enforced through the DGFT (Director General of Foreign Trade). In addition to Indian rules governing import of birds, a CITES certificate from the country of origin of the consignment along with a Veterinary and Legal Procurement Certificate (LPC) is also required. In the case of non-CITES listed species, only export clearance from the country of origin is required. These checks are only at international entry points i.e. at airports and land customs and very rarely is any documentation examined once the exotic species enters the Indian market.

However, analysis of published CITES reports showed that less than 110 exotic bird species were recorded as being imported to India over a whole decade. (Ahmed 2004)

Understanding the origin of exotic bird species in India

Exotic bird species found in India can be assigned to three broad categories:

1. Exotic species that have been breeding within the country from the time before India became a party to CITES: This includes those species that may have been bred in captivity for several generations in countries other than those in their native range. These may have been selectively bred for colour mutations, varieties and hybrids that may or may not be found in the wild elsewhere in the world.

This category may further be extended to include those bird species which have now been listed under CITES protection and continue to be bred in captivity. For example, Eclectus *Eclectus roratus* and Grey Parrots *Psittacus erithacus* in trade are both from captive bred and wild caught sources.

Some of the commonly found bird species under this category are Budgerigar *Melopsittacus undulatus*; Lovebirds *Agapornis* (barring a few species, which are not present in Indian aviculture); Cockatiel *Nymphicus hollandicus*; Zebra Finches *Taeniopygia guttata*; Java Sparrow *Lonchura oryzivora*; White Dove (Barbary Doves) *Streptopelia risoria*; and Diamond Dove *Geopelia cuneata*.

2. Species brought into the country with adequate clearances and documentation through legal channels: This category involves birds that have entered India after the importer obtained a CITES permit along with a no-objection certificate from the Chief Wildlife Warden of the concerned state, in accordance with the Wildlife (Protection) Act and EXIM policy. The birds may be domesticated, captive bred or wild caught.

3. Species that are brought into the country through illegal channels and without adequate permits: This category includes species that are largely wild caught in their country of origin and have been smuggled into India. For example, the Pesquet's Parrot *Psittirichas fulgidus*, despite being a prohibited species for international trade under CITES, is smuggled directly from the country of origin due to its extreme rarity in the wild and difficulty in breeding in captivity. Other examples include various Turacos Musophagidae; Toucans Ramphastidae; Cockatoos Cacatuidae; Macaws Psittacidae; Grey Parrot *Psittacus erithacus*; Lorries and lorikeets Loriinae; Whydah Finches Viduidae; Cardinals Cardinalidae and several African finches.

Exotic bird trade in India: The Current Scenario

Ever since the blanket ban on trade in all wild Indian bird species, the scenario of bird trade in India has slowly shifted focus. For instance, there was negligible export of domesticated exotic birds from India as exporters were trading in wild Indian birds that fetched higher prices in international markets, following the ban, not only has interest revived in the exotic bird species trade and traders have also started displaying exotic birds to cover up illegal trade in Indian bird species.

As per the personal observation of the author, based on surveys since 1992, the total trade in exotic birds in India is not more than an estimated 50–60% of all bird trade taking place (excluding the poultry trade). The majority of the exotic bird trade is in (Category 1) domesticated birds and the remaining trade is in wild caught or captive-bred exotic birds.

The main hubs of the exotic bird trade are Kolkata, Bangalore, Chennai and Hyderabad. These are supported by several breeding farms all over the country which supply exotic species. Unlike the illegal trade in Indian birds, which is primarily handled by local and traditional communities specialising in hunting and trapping of indigenous bird species, the exotic bird trade is handled by those who have the finances, space and access to captive breeding farms.

During surveys undertaken from 1992, the author visited more than 150 bird dealers, breeders, hobbyists and bird keepers involved in exotic bird trade and breeding. They included at least 10 private farms with collections exceeding 50 exotic species holding up to 100 or more breeding pairs. The birds bred at such establishments form the backbone of the exotic bird trade in India. The author found negligible trade from zoo-bred exotic birds and most exotic birds in Indian zoos were apparently mostly derived following seizures from illegal trade.

The following six exotic bird species dominate the exotic bird trade in India:

1. Budgerigar *Melopsittacus undulatus*: The most popular cage bird in the world, the Budgerigar is a parrot from Australia. This species is traded commonly and is easily



Budgerigar and cockatiels on sale in Kolkata

available throughout India in several colours. According to the author's surveys around 300,000 Budgerigars are sold each year within the country, all bred in India. They cost as little as INR100–150 a bird, a clear indicator of their abundant availability. On any given Sunday at the "chiriya haat" (bird market) in Kolkata more than 5,000 Budgerigars can be found for sale.

2. Zebra Finch *Taeniopygia guttata*: A common finch from Australia that is bred in good numbers in India and available in several colour varieties. The author estimates an average 20,000–30,000 Zebra Finches are traded each year within India.

3. Lovebirds *Agapornis* sp: Three species of lovebirds, namely Rosy-faced lovebird *Agapornis roseicollis*, Fischer's Lovebird *A. fischeri* and Masked Lovebirds *A. personata*, are available in 60 different colour varieties/types. Although these birds are originally from Africa, all the birds recorded during the author's surveys were bred in India, with an estimated captive population of more than 150,000 lovebirds within the country.

4. Cockatiel *Nymphicus hollandicus*: These parakeet-sized Australian parrots occur in several colour morphs and breed prolifically. New bird fanciers who may not be able to afford a cockatoo often buy this species instead as it also has a beautiful crest. An estimated average of 10,000 to 15,000 Cockatiels are bred and sold each year in India and their population there is estimated to be more than 100,000. Occasionally, some new colour type or variety is imported, otherwise all birds of this species are bred within India.

5. Java Sparrow *Lonchura oryzivora* (*Padda oryzivora*): A small finch originating from the islands of Java and Bali in Indonesia, where it is threatened in the wild, this is a popular cage bird in India and elsewhere. Ali & Ripley (1983) report that the bird was introduced into the wild in South India, however, there have been no recent sightings. It is bred in captivity in fair numbers in India and is also in CITES Appendix II, although there are no import records. The species is available in various colour morphs and costs more than a Budgerigar or other finches mainly because the species is a slow breeder and usually breeds seasonally according to climatic conditions. Current study estimates indicate a captive-population of at least 100,000 Java Sparrows in India with an annual production of between 8,000 to 10,000 chicks.

Apart from the species above, the Diamond Dove *Geopelia cuneata*, Barbary Dove *Streptopelia risoria*, Golden Pheasant *Chrysolophus pictus* and Silver Pheasant *Lophura nycthemera* are also bred in increasing numbers. There are very few Island Canaries *Serinus canaria* in India, despite this being a popular pet bird in other parts of the world.

In recent years, there has been an apparent increase in smuggling of wild-caught exotic bird species, especially large parrots. Traders find it more lucrative to smuggle certain wild species into the country than breed them in captive conditions that may need a specialised set up and several individuals to establish a breeding population.

The lifespan of some species may be extremely low in captivity (e.g. Cordon-bleu, Whydah Finches and toucans) or many may only breed occasionally (e.g. macaws, lorries, large parrots and cockatoos). The wild counterparts are much cheaper compared to the captive bred individuals in trade. For some species difficult to breed in captivity, including Amazon parrots, cockatoos, macaws, Grey and Eclectus Parrots, high demand for chicks means some traders collect and trade in wild sourced chicks smuggled into India.



Domesticated Barbary Doves

The author's investigations suggest that many birds are smuggled into India through Patna in Bihar by traders operating from neighbouring Nepal. Consignments reach Nepal by air and are then sent by road to Bihar via the Raxaul border. Similarly, traders from Kolkata, West Bengal, use the same *modus operandi* to operate via Bangladesh. A new route via Myammar may have emerged in recent years as can be seen from the latest seizure reports.

Conservation Concerns

1. Smuggling of prohibited wild Indian birds under the garb of the exotic bird trade: It is not uncommon to find traders passing off cleverly disguised Indian bird species or look-alikes as exotics in the illegal bird trade in India. For example, the juveniles of all munias are very similar to juveniles of Zebra and Bengalese Finch also called Society Finch making their identification difficult and sometimes native birds are falsely declared as being (legal) exotics (Ahmed 1999).

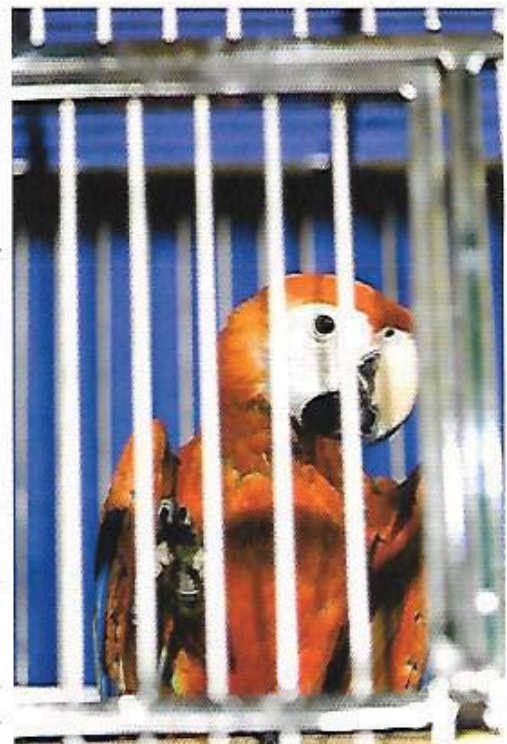
2. Increased smuggling of wild caught exotic birds into India raising conservation concerns in the country of origin: The author rarely found instances of captive breeding of macaws, cockatoos, and lorries in India and it is believed the majority of these species in circulation are smuggled wild caught birds. The smuggling of exotic species from Bangladesh to Kolkata in West Bengal, India and from Nepal to Patna in Bihar, India has flourished since the 1990s with shipments said to arrive from Dubai, Bahrain via Pakistan or from Southeast Asia. Shipments of Grey Parrots from Africa were seized at Mumbai airport in the late 1990s. In 2011, exotic bird consignments were seized *en route* to West Bengal from Bangladesh.

The exotic pet trade can pose a conservation threat to species in the wild in their country of origin. Birds, often juveniles, are often taken from the wild, and are smuggled, stuffed in constricting spaces, with only a few reaching the eventual destination. Furthermore, indiscriminate hunting and capture of targeted species can diminish populations and sometimes lead to a skewed male:female ratio.

Many traders also falsely claim their animals have been sourced from captive breeding facilities when actually they are from the wild. This is a serious issue since wild animals often carry zoonotic diseases which could potentially be transmitted to humans and other animals.

In some cases, species are released by owners into habitats without understanding the impact of their actions on the ecology of the area. Species may become problematic invasives or transmit diseases to wild populations.

According to a study by Bush *et al.*, 2014 : "*International trade in exotic pets is an important and increasing driver of biodiversity loss and often compromises the standards required for good animal welfare; one-fifth of recent wildlife trade reports were driven by demand for pets or animals for use in entertainment; unsustainable harvest of wild animals for the pet trade has already led to population decline and collapse for many species; animal welfare is compromised to some extent at all stages of the exotic pet trade; legality of trade does not guarantee its sustainability; many of the species traded as pets are threatened.*"



Scarlet Macaw

CITES-listed exotic bird species recorded in Indian bird trade

S.No	Common Name	Scientific Name	Origin	CITES
1	Yellow-headed Amazon	<i>Amazona oratrix</i>	Middle America	I
2	Hyacinth Macaw	<i>Anodorhynchus hyacinthinus</i>	South America	I
3	Scarlet Macaw*	<i>Ara macao</i>	South America	I
4	Military Macaw*	<i>Ara militaris</i>	South America	I
5	Moluccan or Salmon-crested Cockatoo*	<i>Cacatua moluccensis</i>	Moluccas and Indonesia	I
6	Goffin or Tanimbar Cockatoo	<i>Cacatua goffiniana</i>	Moluccas and Indonesia	I
7	Yellow-crested Cockatoo or Lesser Sulphur-crested Cockatoo*	<i>Cacatua sulphurea</i>	Sulawesi and Indonesia	I
8	Red-and-blue Lory*	<i>Eos histrio</i>	Indonesia	I
9	Blue-headed Macaw*	<i>Primolius couloni</i>	South America	I
10	Blue-winged Macaw or Illiger's Macaw	<i>Primolius maracana</i>	South America	I
11	Palm Cockatoo	<i>Probosciger aterrimus</i>	New Guinea and Australia	I
12	African Grey Parrot*	<i>Psittacus erithacus</i>	Africa	I
13	Timneh Grey parrot	<i>Psittacus erithacus timmeh</i>	Africa	I
14	Kakapo (only one stuffed specimen)	<i>Strigops habroptilus</i>	New Zealand	I
15	Fischer's Lovebird*	<i>Agapornis fischeri</i>	Africa	II
16	Yellow-collared or Masked Lovebird*	<i>Agapornis personatus</i>	Africa	II
17	Australian King Parakeet*	<i>Alisterus scapularis</i>	Australia	II
18	Orange-winged Amazon*	<i>Amazona amazonica</i>	South America	II
19	Yellow -crowned Amazon parrot	<i>Amazona ochrocephala</i>	South America	II
20	Red-winged Parakeet*	<i>Aprosmictus erythropterus</i>	Australia, Irian Jaya to Papua New Guinea	II
21	Blue and-yellow Macaw*	<i>Ara ararauna</i>	South America	II
22	Red-and-green or Green-winged Macaw*	<i>Ara chloropterus</i>	South America	II
23	Peach-fronted Parakeet*	<i>Aratinga aurea</i>	South America	II
24	Jandaya Conure*	<i>Aratinga jandaya</i>	Brazil	II
25	Nanday Parakeet*	<i>Aratinga nenday</i>	South America	II
26	Sun Conure*	<i>Aratinga solstitialis</i>	South America	II
27	Mallee Ringneck or Barnard's Parakeet*	<i>Barnardius barnardi</i>	Australia	II
28	Port Lincoln Parrot*	<i>Barnardius zonarius</i>	Australia	II
29	Umbrella or White-crested Cockatoo*	<i>Cacatua alba</i>	Moluccas and Indonesia	II
30	Greater Sulphur-crested Cockatoo	<i>Cacatua galerita</i>	Australia and Indonesia	II
31	Pink or Major Mitchell's Cockatoo	<i>Cacatua leadbeateri</i>	Australia	II
32	Blue-eyed Cockatoo	<i>Cacatua ophthalmica</i>	Papua New Guinea	II
33	Little Corella	<i>Cacatua sanguinea</i>	Australia	II
34	Gang-gang Cockatoo	<i>Callocephalon fimbriatum</i>	Australia	II
35	Black Lory	<i>Chalcopsitta atra</i>	New Guinea	II
36	Duivenbode's Lory or Brown Lory*	<i>Chalcopsitta duivenbodei</i>	New Guinea and Irian Jaya	II
37	Patagonian Conure or Burrowing Parrot*	<i>Cyanoliseus patagonus</i>	South America	II

CITES-listed exotic bird species recorded in Indian bird trade

38	Blacknecked Swan*	<i>Cygnus melanocorypha</i>	Australia	II
39	Red-shouldered Macaw or Noble Macaw	<i>Diopsittaca nobilis</i>	South America	II
40	Eclectus Parrot*	<i>Eclectus roratus</i>	Australia, New Guinea and Indonesia	II
41	Galah or Rose-breasted Cockatoo*	<i>Eolophus roseicapilla</i>	Australia	II
42	Red Lory*	<i>Eos bornea</i>	Indonesia	II
43	Violet-necked Lory*	<i>Eos squamata</i>	Indonesia	II
44	Pacific Parrotlet*	<i>Forpus coelestis</i>	South America	II
45	Luzon Bleeding Heart Pigeon*	<i>Gallicolumbaluzonica</i>	Philippines	II
46	Western Crowned- pigeon	<i>Goura cristata</i>	Papua, Indonesia and New Guinea	II
47	Yellow-bibbed Lory	<i>Lorius chlorocercus</i>	Solomon Islands	II
48	Purple-naped Lory*	<i>Lorius domicella</i>	Moluccas	II
49	Chattering Lory*	<i>Lorius garrulus</i>	Indonesia	II
50	Black-capped Lory*	<i>Lorius lory</i>	New Guinea	II
51	Violet Touraco	<i>Musophaga violacea</i>	West Africa	II
52	Monk Parakeet*	<i>Myiopsitta monachus</i>	South America	II
53	Elegant Parrot*	<i>Neophema elegans</i>	Australia	II
54	Turquoise Parrot*	<i>Neophema pulchella</i>	Australia	II
55	Scarlet-chested Parrot*	<i>Neophema splendida</i>	Australia	II
56	Bourke's Parrot*	<i>Neopsephotus bourkii</i>	Australia	II
57	Blue bonnet Parakeet*	<i>Northiella haematogaster</i>	Australia	II
58	Red-bellied Macaw*	<i>Orthopsittaca manilata</i>	South America	II
59	Java's Sparrow*	<i>Padda oryzivora</i>	Indonesia	II
60	Adelaide Rosella*	<i>Platycercus adelaidae</i>	Australia	II
61	Mealy or Pale-headed Rosella*	<i>Platycercus adscitus</i>	Australia	II
62	Green Rosella	<i>Platycercus caledonicus</i>	Tasmania	II
63	Crimson Rosella*	<i>Platycercus elegans</i>	Australia	II
64	Eastern or Gold-mantled Rosella*	<i>Platycercus eximius</i>	Australia	II
65	Yellow Rosella	<i>Platycercus flaveolus</i>	Australia	II
66	Western or Stanley Rosella*	<i>Platycercus icterotis</i>	Australia	II
67	Brown's or Northern Rosella	<i>Platycercus venustus</i>	Australia	II
68	Long-tailed Finch*	<i>Poephila acuticauda</i>	North Australia	II
69	Black-throated Finch*	<i>Poephila cincta</i>	Australia	II
70	Meyer's Parrot*	<i>Poicephalus meyeri</i>	Africa	II
71	Senegal Parrot*	<i>Poicephalus senegalus</i>	West Africa	II
72	Princess of Wales Parakeet*	<i>Polytelis alexandrae</i>	Australia	II
73	Regent Parrot *	<i>Polytelis anthopeplus</i>	Australia	II
74	Barraband's Parakeet (Superb Parrot)*	<i>Polytelis swainsonii</i>	Australia	II
75	Yellow or Golden-collared Macaw*	<i>Primolius auricollis</i>	South America	II
76	Red-rumped Parrot*	<i>Psephotus haematonotus</i>	Australia	II
77	Mugla Parrot or Many-coloured Parrot*	<i>Psephotus varius</i>	Australia	II
78	Dusky Lory*	<i>Pseudeos fuscata</i>	New Guinea	II
79	Goldie's Lorikeet or Red-capped Streaked Lorikeet	<i>Psitteuteles goldiei</i>	New Guinea	II
80	Pesquet's Parrot	<i>Psittichas fulgidus</i>	New Guinea	II
81	Maroon-bellied Parakeet*	<i>Pyrrhura frontalis</i>	South America	II
82	Maroon-faced Parakeet*	<i>Pyrrhura leucotis</i>	South America	II
83	Green-cheeked Parakeet*	<i>Pyrrhura molinae</i>	South America	II

CITES-listed exotic bird species recorded in Indian bird trade

84	Toco Toucan	<i>Ramphastos toco</i>	South America	II
85	Scaly-breasted Lorikeet	<i>Trichoglossus chlorolepidotus</i>	Australia	II
86	Rainbow Lorikeet*	<i>Trichoglossus haematodus</i>	Indonesia and Australia	II
87	Ornate Lorikeet*	<i>Trichoglossus ornatus</i>	Indonesian and New Guinea	II
88	Black-throated Finch*	<i>Poephila cincta</i>	Australia	II
89	Cut-throat Finch*	<i>Amadina fasciata</i>	Africa	III
90	Common Waxbill	<i>Estrilda astrild</i>	Africa	III
91	Lavender Waxbill*	<i>Estrilda caerulescens</i>	West Africa	III
92	Orange-cheeked waxbill	<i>Estrilda melpoda</i>	West Africa	III
93	Red-billed Fire finch	<i>Lagonosticta senegala</i>	Africa	III
94	Green-backed Twin-spot	<i>Mandingoanitidula</i>	Africa	III
95	Melba finch or Green-winged Pytilia*	<i>Pytilia melba</i>	Africa	III
96	Red-cheeked Cordon-bleu*	<i>Uraeginthus bengalus</i>	Central Africa	III
97	Pin-tailed Whydah	<i>Vidua macroura</i>	Africa	III
98	Long-tailed Paradise Whydah	<i>Vidua paradisaea</i>	Central Africa	III

Note: Species marked with (*) were recorded breeding in captivity in India during surveys.



Galliformes in illegal wildlife trade in India: A bird's eye view

Galliformes, commonly referred to as “Gamebirds”, are ground feeding, heavy bodied birds that have had the closest relationship with humans of any bird species. For example, the domestic chicken originating from Red Junglefowl *Gallus gallus* found in India has been long in demand for its meat and other products. Similarly, all over the world, Galliformes like turkeys *Meleagris* sp., Helmeted Guineafowl *Numida meleagris*, pheasants Phasianidae and quails *Coturnix* sp. are unrivaled among other birds for their use by humans. The birds and their eggs are a protein rich meal for which the birds are domesticated or wild birds snared, shot or otherwise caught. Some species, such as pheasants, are also popular ornamental birds due to their spectacular colours.

The order Galliformes is represented by 85 genera and 290 species (Madge *et al* 2002) and are found worldwide. In India, there are only two families namely Megapodiidae represented by only one species endemic to the islands of Nicobar, the Nicobar Megapode *Megapodius*

nicobariensis, and Phasianidae represented by 22 genera and 46 species, of which seven are endemic while the global status of 12 species is threatened. They include the “Critically Endangered” Himalayan Quail *Ophrysia superciliosa*. This family is represented by partridges, francolin, quails and snowcocks accounting for 27 species and pheasants accounting for 18 species (Madge *et al.*, 2002).

Distribution:

In India, Galliformes occur from coastal areas to high altitudes, including mangrove forests in West Bengal and Odisha to the alpine forests of the Himalayas. Some are highly localised to a particular habitat, such as the Manipur Bush-quail *Perdica manipurensis* while a few species have the margins of their geographical distribution in India, such as the Tibetan Eared-pheasant *Crossoptilon harmani*, White Eared-pheasant *C. crossoptilon*, Sclater's Monal *Lophophorus sclateri*, Green Peafowl *Pavo muticus*, Buff-throated Partridge *Tetraothis szechenyii* and Chinese Francolin *Francolinus pintadeanus* (Ali and Ripley 1983, Rasmussen and Anderton 2005).

Legal Status:

All Galliformes species in India are listed under the Wildlife (Protection) Act, 1972, including 18 pheasant species listed in Schedule I of the Act, one species Grey Junglefowl *Gallus sonneratii* listed in Schedule II and all the remaining species listed in Schedule IV. The Act provides protection against hunting, trade and other forms of exploitation including destruction of nest sites.

In the case of bird species listed in various schedules of the Wildlife Protection Act, 1972., trade of live birds, meat, eggs and even destroying their habitat is punishable with a maximum punishment of 3–7 years rigorous imprisonment.

Threats:

India has a rich diversity of francolins, partridges, pheasants and quails found throughout the country. However, habitat degradation and loss, combined with poaching for illegal wildlife trade, has pushed 11 species into a threatened category of the IUCN Red list. India was one of the largest exporters of wild birds in the world from

S.No	Common Name	Scientific Name	WPA, 1972	CITES	IUCN
1	Blood Pheasant	<i>Ithaginis cruentus</i>	I	II	Least Concern
2	Blyth's Tragopan	<i>Trogon blythii</i>	I	I	Vulnerable
3	Cheer Pheasant	<i>Catreus wallichii</i>	I	I	Vulnerable
4	Grey Peacock-Pheasant	<i>Polyplectron bicalcaratum</i>	I	II	Least Concern
5	Himalayan Monal	<i>Lophophorus impejanus</i>	I	I	Least Concern
6	Himalayan Quail	<i>Ophrysia superciliosa</i>	I		Critically Endangered
7	Indian Peafowl	<i>Pavo cristatus</i>	I	III	Least Concern
8	Kalij Pheasant	<i>Lophura leucomelanos</i>	I	III	Least Concern
9	Mountain Bamboo Partridge	<i>Bambusicola fytchii</i>	I		Least Concern
10	Mrs Hume's Pheasant	<i>Symaticus humiae</i>	I	I	Near Threatened
11	Nicobar Megapode	<i>Megapodius nicobariensis</i>	I		Vulnerable
12	Satyr Tragopan	<i>Trogon satyra</i>	I	III	Near Threatened
13	Sclater's Monal	<i>Lophophorus sclateri</i>	I	I	Vulnerable
14	Temminck's Tragopan	<i>Trogon temminckii</i>	I	I	Least Concern
15	Tibetan Eared-pheasant	<i>Crossoptilon harmani</i>	I		Near Threatened
16	Tibetan Snowcock	<i>Tetraogallus tibetanus</i>	I	I	Least Concern
17	Western Tragopan	<i>Trogon melanocephalus</i>	I	I	Vulnerable
18	White Eared-pheasant	<i>Crossoptilon crossoptilon</i>	I	I	Near Threatened
19	Grey Junglefowl	<i>Gallus sonneratii</i>	II	II	Least Concern
20	Black Francolin	<i>Francolinus francolinus</i>	IV		Vulnerable
21	Blue-breasted Quail	<i>Synoicus chinensis</i>	IV		Least Concern
22	Buff-throated Partridge	<i>Tetraophasis szechenyii</i>	IV		Least Concern
23	Chestnut-breasted Partridge	<i>Arborophila mandellii</i>	IV		Vulnerable
24	Chinese Francolin	<i>Francolinus pintadeanus</i>	IV		Least Concern
25	Chukar	<i>Alectoris chukar</i>	IV		Least Concern
26	Common Quail	<i>Coturnix coturnix</i>	IV		Least Concern
27	Green Peafowl	<i>Pavo muticus</i>	IV	II	Endangered
28	Grey Francolin	<i>Francolinus pondicerianus</i>	IV		Least Concern
29	Hill Partridge	<i>Arborophila torqueola</i>	IV		Least Concern
30	Himalayan Snowcock	<i>Tetraogallus himalayensis</i>	IV		Least Concern
31	Japanese Quail	<i>Coturnix japonica</i>	IV		Near Threatened
32	Jungle Bush Quail	<i>Perdica asiatica</i>	IV		Least Concern
33	Koklas Pheasant	<i>Pucrasia macrolopha</i>	IV		Least Concern
34	Manipur Bush-quail	<i>Perdica manipurensis</i>	IV		Endangered
35	Painted Bush Quail	<i>Perdica erythrorhyncha</i>	IV		Least Concern
36	Painted Francolin	<i>Franco linuspictus</i>	IV		Least Concern
37	Painted Spurfowl	<i>Galloperdix lunulata</i>	IV		Least Concern
38	Rain Quail	<i>Coturnix coromandelica</i>	IV		Least Concern
39	Red Junglefowl	<i>Gallus gallus</i>	IV		Least Concern
40	Red Spurfowl	<i>Galloperdix spadicea</i>	IV		Least Concern
41	Rock Bush Quail	<i>Perdica argoondah</i>	IV		Least Concern
42	Rufous-throated Partridge	<i>Arborophila rufogularis</i>	IV		Least Concern
43	Snow Partridge	<i>Lerwa lerwa</i>	IV		Least Concern

1970–1980, with nearly 14.8 million birds exported prior to an export ban, including nine species of Galliformes (Inskipp 1983).

Land-use changes for large infrastructure projects and agriculture, including shifting cultivation or *jhum* cultivation in forested areas, are some of the major drivers affecting habitats for Galliformes species. Accompanied by these changes are forest management practices (Datta 2000, Fernandes 2015), anthropogenic pressures on habitat such as livestock grazing and fuel and fodder collection, which are known negatively to affect Galliforme populations (Khaling *et al.*, 1998; Bhattacharya *et al.*, 2009; Kidwai 2013).

Every year a large number of Galliformes enter illegal trade in India. For many years they have been trapped for food, the pet trade, sport (cock-fights), their feathers, taxidermic reasons, medicinal purposes and for aviculture across the country. Sometimes the eggs of smaller quails and francolins are collected from the wild, either for consumption or to raise chicks that are then hatched under domestic hens/domestic pigeons (Ahmed 2004). It is a common practice among many tribes of central and northeast India to trap wild male junglefowls to enhance the vigor of the local domestic breeds (*Pers. Obs.*).

Decoy call birds (birds trained to lure other birds into a snare by repeated calling), drive nets, a variety of nooses and bamboo-traps are all used for capturing Galliformes for the organised bird trade. Furthermore, many local people in hill states capture, hunt and snare Galliformes for their local consumption and for sale in village markets (Aiyadurai 2011; Bhupatiet *et al.*, 2013; Chutia and Solanki 2013; Longchar *et al.*, 2013; Velho and Laurance 2013).

The effects of direct exploitation of Galliformes are high and common across India although few authors have detailed its intensity (Hilaluddin *et al.*, 2005; Aiyadurai 2011; Gubbi and Linke 2012). Field surveys and secondary information suggest that hunting and snaring of Galliformes are common practices across India (Kaul *et al.*, 2004; Velho *et al.*, 2012).

Galliformes in zoos and other captive breeding facilities also face issues. One of the areas of concern has been the non-maintenance of stud-books for Galliformes despite

them being used for captive breeding purposes and the keeping of hybrid junglefowls in enclosures used in breeding programmes (Mukesh *et al.*, 2013). Aside from native Galliformes, a number of exotic (non-native) pheasants, such as Golden Pheasant *Chrysolophus pictus*, Lady Amherst's Pheasant *C. amherstiae* and Silver Pheasant *Lophura nycthemera*, are bred in captivity and traded for aviculture collections in India. This reflects traders becoming more aware about the legal implications of engaging in trade and displaying protected India bird species. Other farm bred non-native galliformes such as Helmeted Guineafowls and turkeys are also traded as poultry by bird and meat sellers in several Indian bird markets.

Despite 18 Galliformes species being given the highest status of protection (Schedule I) in India, there have been few seizures of quails, partridges and francolins, while most Indian Peafowl seizures and cases are related to the feather trade. This has been an area of contention due to a provision within the Act whereby domestic trade is permitted for naturally shed tail feathers of this species. It is widely believed that many wild birds are killed for extraction of their tail feathers taking advantage of this clause. The protection level of Grey Junglefowl was raised due to excessive trade in their hackle feathers. Previously, trapping for meat was considered sustainable for self-consumption and as a means to meet protein requirements, while there was no commercial trade of the species. In the recent past there has been a gradual shift whereby illegally captured birds are being sold in a clandestine manner in local markets and villages.

Little emphasis has been given to illegal trade in Galliformes, with few offenders apprehended and prosecuted: most attention has been given to more charismatic species.

In light of this, there a strong need to understand and highlight the extent of illegal trade in Galliformes species in India. Enforcement agencies and the judiciary need to be sensitised about this issue while parallel efforts need to be

made with local communities especially in the hilly areas where poaching is considered widespread.

UTILISATION PATTERN OF GALLIFORMES IN INDIA

Utilisation pattern	Group	States
Pet trade	Quails, Partridges, Pheasants, francolins	Haryana, Punjab, Bihar, Uttar Pradesh, Assam, Andhra Pradesh, Maharashtra, Karnataka and Tamil Nadu
Meat	Quails, Partridges, Pheasants, Francolins	All states in India; highly prevalent in all northeastern states, Jammu and Kashmir, Tamil Nadu, Kerala, Andhra Pradesh, Uttar Pradesh, Madhya Pradesh, Rajasthan, Chhattisgarh, Bihar
Sport (bird fights)	Partridges, Francolins, Pheasants	Uttar Pradesh, Odisha, Madhya Pradesh, Chhattisgarh, Andhra Pradesh, Assam
Feathers	Pheasants	Rajasthan, Uttar Pradesh, Tamil Nadu, Himachal Pradesh, Jammu & Kashmir, Arunachal Pradesh, Nagaland, Mizoram, Manipur, Sikkim

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