



A Note on Status and Breeding Biology of Birds-of-Paradise (Aves: Paradisaeidae)

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Abstract

Based on the extraordinary plumage colours and courtship display, the birds-of-paradise are most significant bird in the world. To know its breeding biology fully, these birds can be study bird to everybody. After reviewing many write-ups, it was possible to mention its status and remarkable breeding biology. Noted, 27 species of these birds were in the order Passeriformes and family Paradisaeidae. Most of the birds were showed polygamous, and only two were (crinkle-collared manucode, *Manucodia chalybatus*, halmahera paradise-crow/Silky-crow, *Lycocorax pyrrhopterus*) monogamous. Observation suggested 15 genera of this bird group. Based on the information, 22 species were found least concerned (81.48%), near threatened 4 (14.81%), and vulnerable 1 (3.70%). Habitat loss, limited range, and for bright plumage of male birds, some species are showing their risky life in nature.

Keywords: Birds of Paradise; Breeding Biology; Global Status

Introduction

Status of Birds-of-Paradise

The birds in the family Paradisaeidae are foraged throughout the islands of New Guinea and its surroundings, including the Aru Islands, Misool and Salawati Islands, and Yapen Island. In addition, there are two species native in Moluccas islands and four species whose range includes (partially or entirely) north-eastern Australia [1]. In fact, birds-of-paradise are residents of humid and tropical rainforest. BirdLife International enlisted 41 species of these birds with their threat of extinction [2].

Breeding Biology

Birds of paradise have become an important focus for testing current theories regarding sexual selection [3]. There

are four theories for the breeding of this bird—dominant male, metabolic cost, intrasexual competition, cryptic colouration [4]. Some males may take up to seven years to obtain full adult plumage [5]. Colorfully plumed males gather in groups to perform in courtship display [6], and females are attracted to these communal display arenas [7]. In the case of king bird-of-paradise (the smallest bird-of-paradise) (*Cicinnurus regius*) (Plate 1), the average distance between neighbouring males is 70m [1]. In some habitats, leks may be so dispersed, so females have difficulty locating them [8-10]. Most of the individuals in a lek never receive a mating opportunity; lek polygamous continues to flourish among various species of birds and insects [11]. It has two breeding behavior-lek and court. At least eight species of birds-of-paradise exhibit lek mating systems [12]. In the Paradisaeidae family, the largest bird-of-paradise is mentioned as greater bird-of-paradise (Plate 2). These birds are difficult to maintain and breed in

captivity. In aviary it needs—many perches at all heights, large numbers of live plants, water sprinklers, feeding station, shade-cloth on the roof, pop-hole and sliding hatch door, hatches or tunnel systems, climate control (up to 50°

Celsius), and concrete floor [1]. The bright and conspicuous plumage may increase its vulnerability to predation [13] (Tables 1 & 2, Figure 1).



Plate 1: King bird of paradise.



Plate 2: Greater bird of paradise.

Names	Breeding status	Global status
Greater lophorina, <i>Lophorina superba</i> (Pennant 1781)	Polygamous	LC
Red bird-of-paradise, <i>Paradisaea rubra</i> , Daudin 1800	Polygamous	NT
Greater bird-of-paradise, <i>P. apoda</i> , Linnaeus 1758	Polygamous	LC
Raggiana bird-of-paradise, <i>P. raggiana</i> , PL Sclater 1873	Polygamous	LC
Lesser bird-of-paradise, <i>P. minor</i> , Shaw 1809	Polygamous	LC
Wilson's bird-of-paradise, <i>Diphyllodes respublica</i> (Bonaparte 1850)	Polygamous	NT
Magnificent bird-of-paradise, <i>D. magnificus</i> (Pennant 1781)	Polygamous	LC
King bird-of-paradise, <i>Cicinnurus regius</i> (Linnaeus 1758)	Polygamous	LC
Blue bird-of-paradise, <i>Paradisornis rudolphi</i> , Finsch & Meyer AB 1886	Polygamous	NT
Twelve-wired bird-of-paradise, <i>Seleucidis melanoleucos</i> (Daudin 1800)	Polygamous	LC
Black sicklebill, <i>Epimachus fastosus</i> (Hermann 1783)	Polygamous	LC
Brown sicklebill, <i>E. meyeri</i> , Finsch & Meyer 1886	Polygamous	LC

Western parotia/Arfak parotia, <i>Parotia sefilata</i> (Pennant 1781)	Polygamous	LC
Eastern or Lawes's parotia, <i>P. fawesii</i> , EP Ramsay 1885	Polygamous	LC
Victoria's riflebird, <i>Ptiloris victoriae</i> , Gould 1850	Polygamous	VU
Growling riflebird/Eastern riflebird, <i>P. intercedens</i> , Sharpe 1882	Polygamous	LC
Magnificent riflebird, <i>P. magnificus</i> (Vieillot 1819)	Polygamous	LC
Paradise riflebird, <i>P. paradiseus</i> , Swainson 1825	Polygamous	LC
Long-tailed paradigalla, <i>Paradigalla carunculata</i> , Lesson 1835	Polygamous	NT
Short-tailed paradigalla, <i>P. brevicauda</i> , Rothschi & Hartert 1911	Polygamous	LC
Ribbon-tailed astrapia/Shaw Mayer's astrapia, <i>Astrapia mayeri</i> , Stonor 1939	Polygamous	LC
Arfak astrapia, <i>A. nigra</i> (Gmelin JF 1788)	Polygamous	LC
Standardwing bird-of-paradise/Wallace's standardwing, <i>Semioptera wallacii</i> , GR Gray 1859	Polygamous	LC
Crinkle-collared manucode, <i>Manucodia chalybatus</i> (Pennant 1781)	Monogamous	LC
Halmahera paradise-crow/Silky-crow, <i>Lycocorax pyrrhopterus</i> (Bonaparte 1850)	Monogamous	LC
Black-billed sicklebill/Buff-tailed sicklebill, <i>Drepanornis albertisi</i> (Sclater PL 1873)	Polygamous	LC
Pale-billed sicklebill, <i>D. bruijnii</i> , Oustalet 1879	Polygamous	LC

Source: Wikipedia (2023); LC=least concern; NT=near threatened; VU=vulnerable.

Table 1: Breeding status of some birds-of-paradise of the world.

Names	Causes of present status
Red bird-of-paradise, <i>Paradisaea rubra</i>	Habitat loss; degradation
Wilson's bird-of-paradise, <i>Diphylloides respublica</i>	Habitat loss; limited range; exploitation
Blue bird-of-paradise, <i>Paradisornis rudolphi</i>	Habitat loss; hunt of adult males for their plumage
Long-tailed paradigalla, <i>Paradigalla carunculata</i>	Limited range
Victoria's riflebird, <i>Ptiloris victoriae</i>	Climate change

Table 2: Causes of threatening remarks of birds-of-paradise.

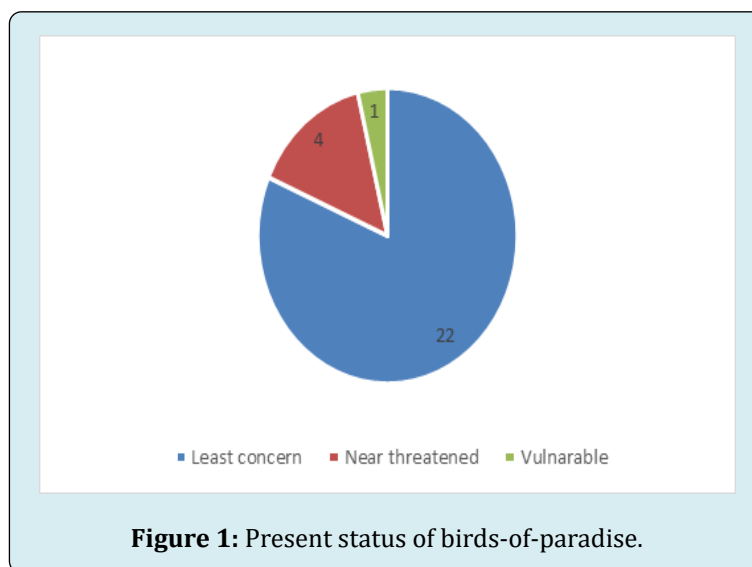


Figure 1: Present status of birds-of-paradise.

Conclusion

Due to natural polygamous breeding, these birds get preference to survive in nature, but it is difficult to reproduce them in captivity. Adequate breeding facilities in zoos could enhance their production. Climate change, habitat loss, and bright plumage of male birds are their threats for declining.

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