

Threatened Birds of Asia:

The BirdLife International Red Data Book

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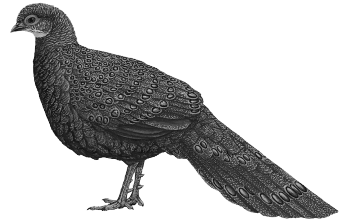
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GERMAIN'S PEACOCK-PHEASANT

Polyplectron germaini

Critical —
Endangered —
Vulnerable C1; C2a



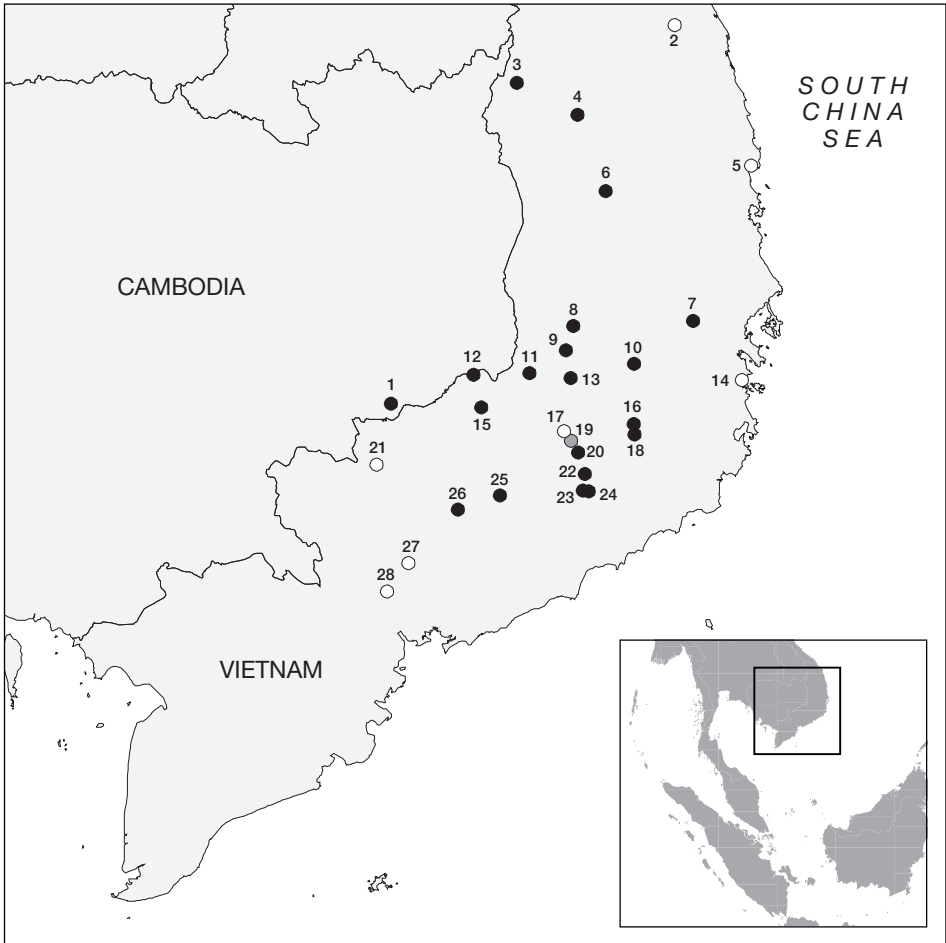
This pheasant is classified as Vulnerable because it has a small population that is undergoing a decline and severe fragmentation, a trend that is projected to continue as clearance of its habitat continues unabated.

DISTRIBUTION Germain's Peacock-pheasant occurs in central and southern Vietnam and eastern Cambodia. Suggestions that it might also be present in India (see Remarks 1) and Laos (see Remarks 2) are mistaken.

■ **CAMBODIA** The species occurs in south Monduliri province near the Vietnam border, with the only confirmed record from: **Snuol Wildlife Sanctuary**, Monduliri province, fairly common just to the east of this site in Keo Smaa and Orang districts, March–April 2000 (P. Davidson *in litt.* 2000, *Oriental Bird Club Bull.* 32 [2000]: 66–76). An unconfirmed record is from Dak Dam, where a probable male was heard calling, 1998; in addition, there is a male in Phnom Penh zoo museum that presumably originated in the country (C. M. Poole *in litt.* 1999).

■ **VIETNAM** The species, until recently thought probably to be a Vietnamese endemic, is fairly widely distributed in central and southern regions, including the Da Lat plateau, with records as follows: **Da Ban**, Ninh Thuan, at least two males, c.250 m, March 1918 (male in BMNH, Robinson and Kloss 1919a); **Mom Ray Nature Reserve**, Kon Tum, December 1994 to March 1995 (Do Tuoc and Ngo Tu 1995); **Chu Prong** district, Gia Lai, April 2000 (Le Trong Trai *per* A. W. Tordoff verbally 2000); **Quy Nhon**, Binh Dinh, one male and one female, April 1924 (Delacour and Jabouille 1925); **Fooc-Rai**, Dac Lac, 1993 (Nguyen Cu and Eames 1993); **Ea Trang**, M'Drak district, Dac Lac, April 1998 (Brickle *et al.* 1998); **Ea Tam**, Krong Nang district, Dac Lac, March 1998 (Brickle *et al.* 1998); **Nam Ca Nature Reserve**, Dac Lac, 1993 (Nguyen Cu and Eames 1993); **Chu Yang Sin Nature Reserve**, Dac Lac, single birds heard calling between 1,120 and 1,140 m, March 1995 (Nguyen Cu *in litt.* 1997), with several other records between 1994 and 1996 (Le Trong Trai *in litt.* 1997); **Dak Mol**, Dak Mil district, Dac Lac, April 1998 (Brickle *et al.* 1998); **Quang Truc**, Dak R'Lap district, Dac Lac, April 1998 (Brickle *et al.* 1998); **Quang Phu**, Krong No district, Dac Lac, May 1998 (Brickle *et al.* 1998); in hills behind **Nha Trang**, 1907 (six specimens in AMNH and BMNH); **Quang Tin**, Dak R'Lap district, Dac Lac, April 1998 (Brickle *et al.* 1998); Da Longit, along the Da Dung river 10–15 km north-west of **Da Lat**, Lam Dong, remains of a bird caught three or four hours' walk downstream, June 1991 (Eames *et al.* 1992, Robson *et al.* 1993b); **B'sré**, one young male collected, July 1938 (Eames and Ericson 1996); **Tuyen Lam** lake, Lam Dong, 1,400–1,500 m, reported to occur by local woodcutters, 1991 (Robson *et al.* 1993b), heard, February 1992 (Treesucon 1993); **Kin Da**, one specimen obtained between 1958 and 1961 (Brunel 1978); hills to the north of **Ta Lung**, on the upper Dong Nai river, north-west of Di Linh, Lam Dong, remains of a male in possession of hunters, June 1991 (Robson *et al.* 1993b); **Hon Quan**, Binh Phuoc, frequently heard, 1929–1931 (David-Beaulieu 1932); **Di Linh** (=Djiring), Lam Dong, March 1927 (three specimens in BMNH and MNHN), three collected in March 1932 (male in AMNH, Dickinson 1970a), two, April 1995 (P. Alström, U. Olsson and D. Zetterström *in litt.* 2000); **Mount Pantar**, Lam Dong, 1,080–1,100 m, one male seen and three heard, June 1991 (Eames *et al.* 1992, Robson *et al.* 1993b), two, February 1994

(Treesucon 1994); **Deo San** (Deo Nui San), Lam Dong, fairly common, 1,400 m, March 1997 (B. F. King verbally 1998); **Cat Tien National Park**, in the Nam Cat Tien sector, Dong Nai province, undated (Morris 1988), heard on most days and observed commonly, December 1989–January 1990 (Robson *et al.* 1991), near park headquarters, at Bao Oc, and near Dak Lua, June 1991 (Eames *et al.* 1992, Robson *et al.* 1993b), three, February 1994 (Treesucon 1994), four seen and six more heard, April 1995 (P. Alström, U. Olsson and D. Zetterström *in litt.* 2000), five seen and many heard in a week-long visit to the area in February 1997 (Nguyen Cu *in litt.* 1997), regularly in February–May 1997 (Tentij and Atkins 1998b), six seen and four heard in four days, April 1998 (Hornbuckle 1998b), and in the Cat Loc sector, Lam Dong province, three males and one female trapped, October 1993 (Nguyen Cu *in litt.* 1997); **Ma Da**,



The distribution of Germain's Peacock-pheasant *Polyplectron germaini*: (1) Snuol Wildlife Sanctuary; (2) Da Ban; (3) Mom Ray Nature Reserve; (4) Chu Prong; (5) Quy Nhon; (6) Foc-Rai; (7) Ea Trang; (8) Ea Tam; (9) Nam Ca Nature Reserve; (10) Chu Yang Sin Nature Reserve; (11) Dak Mol; (12) Quang Truc; (13) Quang Phu; (14) Nha Trang; (15) Quang Tin; (16) Da Lat; (17) B'srè; (18) Tuyen Lam; (19) Kin Da; (20) Ta Lung; (21) Hon Quan; (22) Di Linh; (23) Mount Pantar; (24) Deo San; (25) Cat Tien National Park; (26) Ma Da; (27) Bien Hoa; (28) Ho Chi Minh City.

○ Historical (pre-1950) ◐ Fairly recent (1950–1979) ● Recent (1980–present)

Dong Nai, a pair heard and seen, 1989 (Nguyen Cu *et al.* 1989); **Bien Hoa**, Dong Nai, 1900 (specimen in MNHN); 20 km from **Ho Chi Minh City** (=Saigon), February 1932 (male in FMNH); “Hoan Khat, Annam” (untraced), sea-level, December 1905 (three specimens in BMNH); “Suoi Gian, Annam” (untraced), July 1907 (specimen in BMNH).

Additional unconfirmed reports include: Phu Doan, near Thuyen Quang, reportedly collected, 1906 (Ménégaux 1907); Kon Ha Nung, Gia Lai, a specimen in the possession of a local hunter, undated (Stepanyan *et al.* 1983; see Remarks 2).

POPULATION While no population estimates are available, it appears that the species is fairly common in most areas of suitable habitat throughout its small range (Delacour 1977, Eames 1995a).

Cambodia The recently discovered Cambodian population appears to be “locally common” in available habitat in south Monduliri, where it was heard “fairly regularly” in April 2000 (P. Davidson *in litt.* 2000).

Vietnam In the 1920s it was described as “very common in all the forests of southern Annam and Cochinchina, both on the high and the low lands” (Delacour *et al.* 1928). More recently, birds were encountered almost daily in some areas of Cat Tien National Park (Eames *et al.* 1992, Nguyen Cu *in litt.* 1997), and they are thought to be “fairly common” there, being seen and heard daily in February–May 1997 (Tentij and Atkins 1998b). In Dac Lac the species was frequently seen and heard in evergreen and mixed forest at six sites (Brickle *et al.* 1998). It was also “fairly common” at Deo Nui San in 1997 (B. F. King verbally 1998). It seems to be present in many patches of suitable habitat within its range and its total population is possibly large, but certainly declining rapidly given rates of habitat loss.

ECOLOGY Habitat Germain’s Peacock-pheasant is found in forest, often near damp places, from sea-level to 1,200 m (Delacour 1977) or 1,400 m (Robson 2000), and even apparently from 1,300 to 1,800 m on “the Lang Bian massif” (Brunel 1978). It has been encountered in secondary, logged and thorny bamboo forest (probably including *Bambusa arundinacea*) on flat or gently sloping ground in Cat Tien National Park where the forest is primarily semi-evergreen and dominated by dipterocarps (Robson *et al.* 1991). At Ma Da, it was recorded in “mixed-dipterocarp” forest (Nguyen Cu *et al.* 1989). The habitat in the Cat Loc sector of the park is tropical semi-evergreen forest on low hills, swampy or bamboo-dominated in many areas (Nguyen Cu *in litt.* 1997). This sector is hillier than other sectors of the park, although only ascending to 400 m, and the species occurs on even the steepest slopes in this habitat (Tentij and Atkins 1998). In Dac Lac province it was recorded in evergreen and mixed forest at six sites (Brickle *et al.* 1998).

Food Nothing is known of the diet in the wild, although it is probably similar to that of the (possibly conspecific: see Remarks 1) Grey Peacock-pheasant *Polyplectron bicalcaratum*.

Breeding In the wild the breeding season appears to be February to April at least. A nest containing one egg was found in Cat Tien National Park in February 1997 (Tentij and Atkins 1998b). It was placed in a shallow hollow lined with down; 18 days after its discovery there was no sign of any birds (Tentij and Atkins 1998b). A pair with one fledgling was observed at Cat Tien National Park in April 1998 (Hornbuckle 1998b). In captivity, birds appear to breed almost year-round, the female laying again once the young become independent and incubating for 21–22 days (Delacour 1977, Johnsgard 1999). The usual clutch consists of two eggs, although one-egg clutches also occur, at least in captivity (Delacour and Jabouille 1927a, Delacour 1977, Johnsgard 1999).

THREATS Germain’s Peacock-pheasant is one of two threatened bird species that are entirely restricted to the “South Vietnamese Lowlands Endemic Bird Area”, threats and conservation measures in which are profiled by Stattersfield *et al.* (1998). Deforestation continues apace

throughout its range (see equivalent section under Crested Argus *Rheinardia ocellata* for an overview of threats in Vietnam, Grey-crowned Crocias *Crocias langbianis* for threats on the Da Lat plateau, and Orange-necked Partridge *Arborophila davidi* for threats at Cat Tien National Park). The species has thus suffered major declines owing to forest loss and fragmentation as a result of commercial logging, subsistence cultivation and the commercial cropping of coffee and cashew nuts (J. C. Eames *in litt.* 1999). In Cambodia, suitable habitat is relatively restricted in extent and gradually being logged and cleared (P. Davidson *in litt.* 2000). Hunting and trapping may represent lesser threats (J. C. Eames *in litt.* 1999); evidence of the trapping pressure on Vietnamese galliforms appears under Vietnamese Pheasant *Lophura hatinhensis*.

MEASURES TAKEN The species is listed on CITES Appendix II.

Protected areas It has been recently determined present at one protected area, Cat Tien National Park, a site considered irreplaceably important for the long-term conservation of East Asian galliforms (McGowan *et al.* 1999). In the account above it is also recorded from Chu Yang Sin Nature Reserve, which was included in the list of protected areas in August 1985 but the final boundaries have not been agreed and no conservation measures currently exist (Eames *et al.* 1995b). BirdLife International Vietnam Programme is in the process of developing a conservation project there (A. W. Tordoff *in litt.* 2000; see Measures Proposed under Grey-crowned Crocias). Further details of measures taken at Cat Tien National Park (including the 235 km² Cat Loc area), appear in the equivalent section under Orange-necked Partridge.

MEASURES PROPOSED In the protected areas listed above, implementation of management plans is urgently required, and effective control of hunting and logging is a priority. A protected area should be considered on the Di Linh plateau, at a lower elevation and westward of Da Lat, where this species was found to be common (Eames *et al.* 1991). Additional measures proposed for Dac Lac province are described under Green Peafowl, while measures proposed at Chu Yang Sin Nature Reserve appear under Grey-crowned Crocias, and for Cat Tien National Park under Orange-necked Partridge. Additional proposed protected areas where the species is likely to occur (although not yet recorded) are the Kalon Song Mao extension, Binh Thuan province (133 km²), and Tan Phu, Dong Nai province (190 km²), as well as Lo Go-Sa Mat Nature Reserve, Tay Ninh province (97 km²), and these should be properly surveyed, established and managed at the earliest opportunity (Wege *et al.* 1999, J. C. Eames *in litt.* 2001). In Cambodia Snuol Wildlife Sanctuary should be managed and potentially extended so that habitat suitable for the species receives maximum protection. Outside protected areas, attempts should be made to minimise the deleterious impacts of widespread logging and shifting agriculture. Eames (1995a) specifically recommended halting immigration into the districts of Lac and Krong Bong (and presumably this would be relevant to other well-forested districts of conservation importance), and that existing communities in these areas be supported by development assistance as part of a coherent conservation and development programme.

Data collection and survey work to build up knowledge of the species's ecology and population size would facilitate the design of a focused conservation programme. In particular, there is a need to determine its tolerance to habitat alteration (P. J. K. McGowan *in litt.* 1999).

REMARKS (1) A. O. Hume (*Stray Feathers* 1 [1872]: 35–36) tentatively described *Chinquis intermedius* from *Polyplectron germaini* tail feathers discovered in a Lushai village in north-eastern India. On seeing Elliot's (1866) description of *germaini* he realised his mistake, but ventured that the range of *germaini* was probably much larger than known (i.e. "Cochinchina") given the provenance of the tail feathers (*Stray Feathers* 5 [1877]: 118–119). This has not

proven to be the case and the feathers were presumably transported overland to India by some traders or travellers. The species is very similar to the Grey Peacock-pheasant *Polyplectron bicalcaratum*, and indeed the suggestion has been made that the two allopatric forms are conspecific (Beebe 1918–1922). Given consistent differences in bare part coloration, voice and display they warrant species status; however, they interbreed freely in captivity (Johnsgard 1999). (2) Collar and Andrew (1988) mentioned unconfirmed reports of this species from hunters on the Bolaven Plateau in Laos. These were not reiterated by Collar *et al.* (1994) and there is no evidence that the species has ever occurred in the country. During discussion with villagers in Xe Pian NBCA in 1992 an effort was made to establish the *Polyplectron* species present, and while villagers' reports clearly indicated *germaini*, all field encounters were with Grey Peacock-pheasant, suggesting the source of earlier confusion (Thewlis *et al.* 1998). (3) Despite Stepanyan *et al.* (1983) identifying a specimen of *Polyplectron germaini* in the possession of a hunter at Kon Ha Nung, this record was not reported in Stepanyan (1995) and therefore may be doubtful.