

THE HISTORICAL RANGE OF THE WHITE-WINGED WOOD DUCK IN INDONESIA

by

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Summary

Details are provided of historical records of *Cairina scutulata* in Sumatra and Java. There are confirmed records from seven Sumatran provinces and West and Central Java. These records increase the likelihood that populations survive today in Riau, Bengkulu and elsewhere in Sumatra.

Introduction

Knowledge of the range of the White-winged Wood Duck *Cairina scutulata* in Sumatra has recently been reviewed by Holmes (1990). During the course of an investigation into the historical and current status of this species, a considerable amount of further information was uncovered on the former distribution of *C. scutulata* in Sumatra. This information is presented here, along with information on its historical range in Java and Malaysia. Sites listed in the text are shown on Figure 1.

Records from Sumatra

C. scutulata has been recorded from at least seven of Sumatra's eight provinces, including a number of historical and recent records not included in the review of Holmes (1990). These records show conclusively that *C. scutulata* is distributed widely beyond the eastern plains of the southern provinces of Jambi, South Sumatra and Lampung where records were concentrated in the 1970s and 1980s.

Aceh

Recorded on 27.9.91 near Runding (2°20'N, 97°51'E) by van Balen (1992).

North Sumatra

In eastern North Sumatra, *C. scutulata* was frequently shot by Hagen before 1901 in Deli (c. 3°48'N, 98°39'E, Medan region; Hartert 1902; Phillips 1923). As noted by Holmes, specimens were also collected from Deli before 1905 by Waldeck (de Beaufort 1909; van Marle and Voous 1988). Further down the eastern side of the province, a female skin in the Zoological Reference Collection, National University of Singapore was collected by Boogaarts at Telok Pandji on Sungai Batoen, south of "Laboenlilik" (Labuhanbilik, 2°25'N, 100°10'E) on 14.8.37 (L. Kuah in litt. 1991). Holmes (1990) recently recorded the species on the western side of the province.

Riau

One bird was recorded by J.P. Gee on 23.3.79 along the Rokan river or one of its tributaries, 40 km west of Duri (oilfield) at about 1°20'N, 100°54'E. The bird was in flight amidst swamp forest with some hillocks bearing drier forest in the area (P. Andrew in litt. 1991).

Jambi

In addition to earlier records from Muara Bulian (Holmes 1976) and Sungai Berbak (Silvius & De Iongh 1989), one individual was recorded from 28.7.91 to 8.8.91 at Sungai Gelumpangkecil in the Tigahpuluh foothills near the southern boundary of Riau (1°08'S, 102°11'E). The bird was seen flying over a base camp four times at around 1815 hours and three times at around 0615 hours. Sungai Gelumpangkecil is a slow-moving forest river in an area of lightly logged lowland rain forest at an altitude of 60 m (F. Danielsen & M. Heegaard in litt. 1991).

Bengkulu

Hoogerwerf (1950) reported that Pieters had collected specimens of *C. scutulata* from "South Benkoelen" (Bengkulu).

Kerinci

Robinson and Chasen (1936) refer to specimens in the Raffles museum collected in "Korinchi" (Kerinci), presumably collected from an intermontane basin in the Kerinci region. This record suggests the former occurrence of *C. scutulata* in the fault valley that runs irregularly up the length of the West Sumatran mountains (D.A. Holmes in litt.).

Other parts of Sumatra

There are additional records from South Sumatra and Lampung, where recent observations have been concentrated. In South Sumatra, one was shot by Goldman before 1892 "in the sawahs near Beniawang" (Vorderman 1892, presumably Sungai Benawang, c. 1°59'S, 104°38'E) and a Bogor museum specimen was collected in 1918 in "Talang Betootoc" (Ounsted 1985, Talang Betutu, 2°48'S 104°42'E). Five birds were collected from Palembang in different places and at different times around 1937, and taken into captivity by H.C.E. Quast (Wildfowl Trust VIIIth Annual Report 1954-1956). Pieters collected specimens at Sungai Mesuji, South Palembang at c. 3°44'S, 105°15'E (Hoogerwerf 1950). In Lampung, a skin was collected by Vorderman in March 1896 (National Museum of Natural History specimen, Leiden). Two skins were collected by Harrison and Hiller in October-November 1901 at "Goenong Soegi" (Gunung Sugi, c. 5°00'S, 105°16'E; Stone 1902). On Siberut island, A.J. Whitten (in litt. 1976) obtained repeated local reports of *C. scutulata* in 1976, but was unable to confirm these despite repeated searching (Kear 1979).

Records from Java

There are several confirmed records from Java. Between 1839 and 1844, Muller collected three type specimens from "Lake Gorong" (presumably lake Garang, Central Java, c. 7°00'S, 110°20'E) and one from "Buitenzorg" (Bogor), West Java at c. 6°37'S, 106°50' E

(Muller 1842; Schlegel 1866; Phillips 1923). These skins are now in NMNH Leiden. Two skins were collected by Diard in 1863 from unknown locations, now in NMNH Leiden. Two skins were collected by Bartels from "Langgen" (presumably Desa Langgen, Rawa Lakbok, West Java, c. 7°36'S, 108°42'E) on 24.12.1907 (NMNH, Leiden). Reclamation of this swamp forest area began in 1924 (M.J. Silvius in litt.). Hoogerwerf (1950) refers to eggs in Bogor museum collected by Chauvingny de Blot from "Kalipoetjang" (presumably Kali Pucang, West Java, c. 7°36'S, 108°48'E) and "Keboemen" (Kebumen, Central Java, c. 7°40'S, 109°41'E). Hoogerwerf (1970) refers to a possible record from the mouth of the Tjitelang in Ujung Kulon National Park (c. 6°45'S, 105°20'E) on 17.9.32 when four birds resembling domestic "Manila" ducks were seen by De Kanter as they flew over his camp. C.D. Savage (in litt. 1975) was told of one possible *C. scutulata* seen flying and calling at dusk at Njur (Nyiur) swamp in Ujung Kulon in 1972. The bird was seen by the warden W. Ramon, who gave a good imitation of the bird's call.

Discussion

These records demonstrate that *C. scutulata* was probably once widespread in the wetland forests of Sumatra and West and Central Java. Although Hoogerwerf (1970) apparently regarded *C. scutulata* as only a visitor to Java from Sumatra, this was clearly not the case in the last century. Although more recent records in Ujung Kulon may have been of vagrant Sumatran birds, none of these records are confirmed. There have been no confirmed records of *C. scutulata* in Java since 1907, and it is probably extinct there as almost no suitable habitat remains.

In continental Asia historical records show that *C. scutulata* was formerly well established in North-east India, Bangladesh, Myanmar (Burma), Thailand, Cambodia, Lao PDR, and Vietnam (Green 1992). Although there are numerous records from Peninsular Thailand, there has only ever been one confirmed record in Peninsular Malaysia (Fig. 1), despite occasional unconfirmed reports of its continued presence. This Malay record is cited by Robinson (1909) as "an old and deteriorated mounted specimen from the vicinity of Ipoh in the Kinta District of Perak (state), in Selangor museum" (c. 4°36'N, 101°05'E). *C. scutulata* may also have occurred in Kedah state to the north of Perak, because A.T. Edgar told Gibson-Hill (1949) that the local people in Kedah "speak of it".

Given the number of museum collectors and ornithologists formerly present, the paucity of records suggests that *C. scutulata* may never have occurred in the central and southern states of Peninsular Malaysia. Whilst this hiatus in distribution might be related to the lack of seasonality in the climate of Peninsular Malaysia compared to the rest of South-east Asia, the distribution of *C. scutulata* in Indonesia throws such an explanation into question. Whilst the presence of *C. scutulata* in southern Sumatra and Java is compatible with a dependence on marked wet and dry seasons, the fact that *C. scutulata* was well established in non-seasonal northern Sumatra suggests that the species is not adversely affected by such a climate. The distributional hiatus in Malaysia may have some other explanation or be a historical accident.

In Sumatra, suitable wetland forest habitat remains widespread outside the south-east corner where records of *C. scutulata* in the 1970s and 1980s were concentrated (Holmes 1990). The historical and recent records presented here suggest that the species is probably still widespread beyond the south-east, in Riau, Aceh, North Sumatra and elsewhere. Field surveys are urgently required to identify important *C. scutulata* populations that can be conserved before this habitat is destroyed. Recent surveys in Riau by the Directorate General of Forest Protection and Nature Conservation and Asian Wetland Bureau have not recorded *C. scutulata* (M.J. Silvius in litt. 1991). However, failure to observe birds is not a sure indication that they are absent. Holmes (1990) highlights the difficulties of locating birds when they are not calling, and the importance of concentrating observations around dawn and dusk when the birds are most active and vocal. Experiments in captivity at Slimbridge, UK (Green, Webber & Etheridge in prep.) show that *C. scutulata* calls in response to playback of conspecific vocalizations. This method could potentially be used to locate the species in the field as with other forest or woodland birds (e.g. Mosher *et al.* 1990). Anyone able to apply this technique in the field or wishing to familiarise themselves with the calls of the species should approach the author for a cassette of *C. scutulata* calls suitable for use in playback.

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References

- Balen, S. van. 1992. Record of White-winged Wood Duck in Aceh Province, Sumatra. *Kukila* 6 (1): 40.
- de Beaufort, L.F. 1909. Twee vogel verzamelingen van Sumatra. *Versl. Meded. Ned. Orn. Ver.* 6: 8-15.
- Gibson-Hill, C.A. 1949. *An annotated check list of the birds of Malaya*. Bulletin of the Raffles Museum, Singapore 20.
- Green, A.J. 1992. *The status and conservation of the White-winged Wood Duck Cairina scutulata*. IWRB Spec. Pub. 17.*

- Hartert, E. 1901-1902. *Aus den wanderjahren eines Natureforschers. Reisen und Forschungen in Afrika, Asien und Amenka, nebst daran anknupfenden meist ornithologischen Studien.* Large 8vo, Berlin, London, pp. XV, 329.
- Holmes, D.A. 1976. A record of White-winged Wood Duck *Cairina scutulata* in Sumatra. *Kukila* 1: 23-24.
- Holmes, D.A. 1990. Note on the occurrence of the White-winged Wood Duck *Cairina scutulata* on the west coast of North Sumatra. *Kukila* 5: 69-72.
- Hoogerwerf, A. 1950. De Witvlengleend, *Cairina scutulata*, van der Grote Soenda eilanden. *Ardea* 38: 64-69.
- Hoogerwerf, A. 1970. On the ornithology of the rhino sanctuary Ujung Kulon in West Java (Indonesia). *Nat. Hist. Bull. Siam Soc.* 23: 447.
- Kear, J. 1979. Wildfowl at risk, 1979. *Wildfowl* 30: 159-161.
- Marle, J.G.van & Voous, K.H. 1988. *The birds of Sumatra. An annotated check list.* Brit. Orn. Union Check List No. 10.
- Mosher, J.A., Fuller, M.R. & Kopeny, M. 1990. Surveying woodland Raptors by broadcast of conspecific vocalisations. *J. Field Ornithol.* 61: 453-461.
- Muller, S. 1842. *Verhandelingen over de Natuurlijke Geschiedenis der Nederlandsche Overzeesche Bezittingen.... Land - en Volkenkunde* [= vol.1], 1839-1844 [= 1842], p.159, footnote (Java).
- Ounsted, M. 1985. *Report on white-winged wood duck Cairina scutulata.* Wildfowl Trust unpublished report.
- Phillips, J. 1923. *A natural history of ducks.* vol. 1. Boston: Houghton Mifflin.
- Robinson, H.C. 1909. Notes on birds new to, or rare in the Malay peninsular. *Journal of federated Malay states Museums* 4: 129-133.
- Robinson, H.C. & Chasen, F.N. 1936. *The birds of the Malay peninsula.* vol. 3. Witherby, London.
- Schlegel, H. 1866. *Museum d'Histoire Naturelle des Pays-Bas. Revue methodique et critique des collections deposeses dans cet etablissement. Revue methodique et critique de la collection des oiseaux. Anseres.* 8 vo, Leyden, pp. 122.
- Silvius, M.J. & De Iongh, H. 1989. White-winged Wood Duck, a new site for Jambi province. *Kukila* 4: 150-151.

Silvius, M.J., Steeman, A.P.J.M., Berczy, E.T., Djuharsa, E. & Taufik, A.W. 1987. *The Indonesian Wetland Inventory. A preliminary compilation of existing information on wetlands of Indonesia*. PHPA, AWB/INTERWADER, EDWIN.

Stone, W. 1902. A collection of birds from Sumatra, obtained by Alfred C. Harrison Jr., and Dr. H.M. Hiller. *Proc. Acad. Nat. Sci. Philadel.* LIV: 670-691.

Vorderman, A.G. 1892. Over eene collectie vogels afkomstig van de lampongs (Zuid Sumatra). *Natuurk Tijdschr. Ned. Indie*, Batavia 51: p. 201-249.

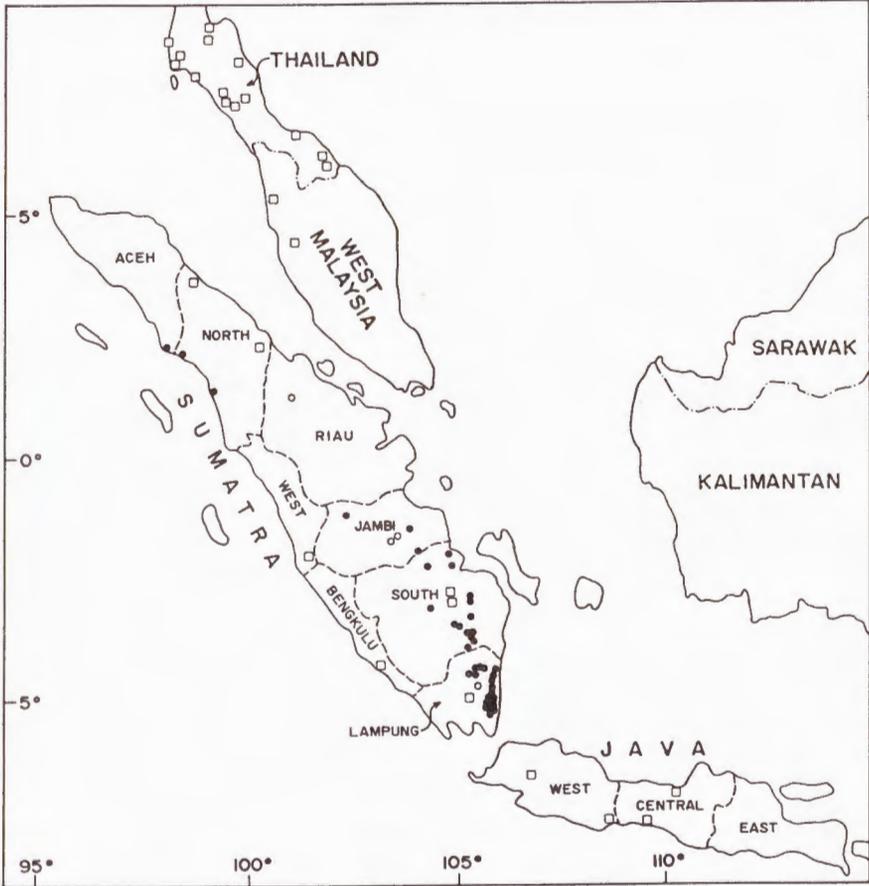
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Figure 1. Records of White-winged Wood Duck in the Sundanese region



Open squares indicate pre-1940 or undated records, open circles 1940-1980 records and solid circles post-1980 records. Records thought to be unreliable are excluded.