

THE DISTRIBUTION, STATUS AND BREEDING OF FAIRY PITTA (*PITTA NYMPHA*) IN TAIWAN¹

L. L. SEVERINGHAUS², C. T. LIANG²,
S. R. SEVERINGHAUS³ and L. C. LO⁴

*Institute of Zoology, Academia Sinica, Taipei,
Taiwan 11529, Republic of China²,*

*66 Cleary Court, No. 805, San Francisco,
Ca. 94109, U.S.A.³ and*

*Taichung Bird Club, 30, Lane 38, Hoping Street,
Taichung 40218, Taiwan, Republic of China⁴*

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L. L. Severinghaus, C. T. Liang, S. R. Severinghaus and L. C. Lo (1991) The distribution, status and breeding of fairy pitta (*Pitta nympha*) in Taiwan. *Bull. Inst. Zool., Academia Sinica* 30(1): 41-47. Fairy pitta is a rarely seen summer visitor in Taiwan. This paper documents the first nest observed in the wild, the nesting habitat of the species, and the parental behavior of the adults. In addition, all of the information available on this species in literature on Taiwan birds, on specimens in known avian collections of Taiwan birds, and observations made by local bird watchers were compiled and analyzed to obtain a preliminary understanding of the distribution and status of this species in Taiwan.

Key words: Fairy pitta, *Pitta nympha*.

The fairy pitta (*Pitta nympha*) is an uncommon summer visitor in Taiwan. Not much information is available about this reclusive species. According to Mayr (1979), it breeds in southern Japan, southern Korea, and eastern China south to Kwangsi and Taiwan. It winters in southern China, Indochina and Borneo. Hachisuka and Udagawa (1951) reported that it bred in Japan and Quelpart Island, but not in the Ryukyus. Thus they concluded that the individuals visiting Taiwan must be from South China. In Japan it is now known to breed in Kochi, Nagasaki, Miyazaki Prefectures, and on Tsushima Island (Wildbird Soc. of Japan 1982), but a breeding record is still not

known to exist from the Ryukyus. King *et al.* (1984) state that it is a summer visitor in Taiwan and migrates to Borneo. Kuroda (1917) said that this species is a migrant to Taiwan, coming from the continent in spring; it breeds in the forests and has a loud cry "pao-pao" most often heard in the evenings. Takatsukasa and Hachisuka (1925) thought it very likely breeds in Taiwan. Ogilvie-Grant and La Touche (1907) said that it inhabits the mountain forests of Taiwan, while Cheng (1987) said it is found in the hilly regions of Taiwan. It is one of the least known species of birds in Taiwan.

This paper compiles historical and current knowledge on its distribution and status in Taiwan, and reports on the first

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nest observed in the wild, the breeding habitat, and the parental behavior of this species.

METHODS

This study was carried out in three parts. For historical information, we first made a literature survey to compile historical records, and visited major museums in London, USA, and Japan to track down known pitta specimens from Taiwan. After we found a pair of pittas on 14 June 1987 in Chung-Cheng Campground near Ta-Keng (latitude 24°11'N, longitude 120°44'E), 7.5 km northeast of Taichung City, we made almost daily observations of their behavior for 30 days and of their nest on 14 and 15 July 1987. For a broad picture of the current status of this species we contacted most of the active bird watchers in Taiwan to obtain

their personal observation records, and also obtained access to the observation inventory of the Taipei Wildbird Society.

RESULTS AND DISCUSSIONS

Status and Distribution

The records of specimens and sightings of this species that we have collected are given in Table 1. All but two occurred between April 28 and July 19, the others being one sighting and one specimen collected in October. There were many reported sightings in the 1970's in the Mei-Nung area in Kaohsiung County (H. Y. Tsai, pers. comm.) but the exact dates and localities are not known.

This species has never been reported as common, although the specimen shops at Sun-Moon Lake, Nan-Tou County, carried 294 mounted skins for sale in July

Table 1
Records of fairy pittas sighted or collected in Taiwan

Date	Locality	Sex	Source
16 May 1864	from mountains	1?	Swinhoe, 1864
10 May 1894 ¹	La-Ku-Li, N. Taiwan	1F	Mees, 1977
10 May 1895 ¹	Southern Taiwan	1F	Seebohm, 1895
6 May 1911	Horisha (Pu Li)	1M	MCZ ² , No. 232306
10 May 1911	Horisha	1F	MCZ, No. 93936
5 Oct 1911	Horisha	1F	MCZ, No. 8413
1 May 1917	Pu-Li, Nantou	1F	Kuroda, 1917
19 July 1960	Hsin-Sheh, Taichung	1M1?	USNM ³ No. 48370, and No. 473070
?	Hsin-Sheh, Taichung	1?	USNM No. 472267
19 July 1960	Hsin-Sheh, Taichung	2M	Kuntz, 1962
11 June 1967	Chang-Hua	1M	Mees, 1977
18-19 May 1968	Chi-Shan, Kaohsiung	11M2F	Mees, 1977
19 May 1968	Nan-Kang, Nantou	1M	Mees, 1977
30 May 1968	Pei-Shan Kun	1M	Mees, 1977
28 April 1971	Ken-Ting, Ping-Tung	1 seen	Kobayashi and Cho, 1977
2 July 1971	Chu-San (Nantou)	1M	Mees, 1977
28 May 1988	Shan-Ping, Kaohsiung	1 seen	Lue, K. Y. pers. comm.
15 Oct 1989	Ken-Ting, Ping-Tung	1 seen	Yao, K. Y. pers. comm.

1. Both collected by Holst. Same bird?
2. Museum of Comparative Zoology, Harvard University.
3. US National Museum.

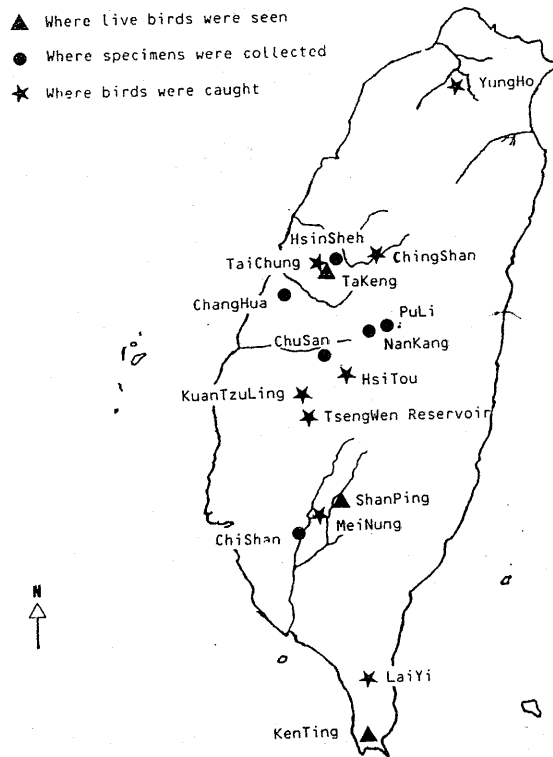


Fig. 1. Sighting and trapping localities of fairy pitta in Taiwan.

1967 (Severinghaus, 1970), and 135 specimens in the fall of 1971 (W. W. Thomas, manuscript). At Tseng-Wen Reservoir in the early 1980's hundreds were caught each spring. The highest record was more than 200 birds in one day (C. H. Li, pers. comm.). All the reported trapping and sighting localities are given in Fig. 1. Apparently, although this species is hard to see, bird trappers have been able to catch them in large numbers during the months they are in Taiwan.

From these records, it appears that fairy pitta inhabits scarcely populated wooded areas below 1,300 m in central and southern Taiwan. All the sighting and capturing records are located west of the central mountain range. However, this might only be the result of the low birding intensity on the east coast. In the last 20 years, the locations where large numbers of pittas were

reported to come from have shifted from the central portion of the island to the south. This could be either because central Taiwan has become too densely populated in recent years, or because uncontrolled hunting have already depleted the pitta population in central Taiwan.

Evidence of Breeding

The fact that pittas breed in Taiwan has only been supported by indirect evidence in the past. The specimen Holst obtained had only half developed eggs inside (Seebohm, 1895). Chang (1985) stated that nests were found on the ground at Chi-Shan in May, but did not produce any details or support for the statement. Kobayashi and Cho (1977) listed one nest with three eggs for 27 May 1935 at Chi-Chi and one nest with four eggs for 26 May 1935. These two nests, collected by Mr. Fukutaro Tashiro, were placed on rocks 4 m above the ground (Kobayashi, 1937).

Bird trappers reported that pittas nested on the ground in central and southern Taiwan between April and June. In addition, young pittas have appeared for sale in pet stores from time to time (Wu Sun-Hsiung, pers. comm.). Nevertheless, no nest was found and observed by bird watchers or researchers until 14 July 1987.

The Nest and Its Habitat

The authors and bird watchers from the Taichung Bird Club observed the two pittas for about 30 days. Because they frequently carried food in their bills, the presence of a nest was strongly suspected. On the rainy morning of 14 July, an adult carrying earthworms finally led us to the discovery of their nest.

The nest was placed in a fork of an acacia tree (*Acacia confusa*) on a slope in a secondary forest (Fig. 2). Patches of the forest floor were cleared of undergrowth for camping purposes while the

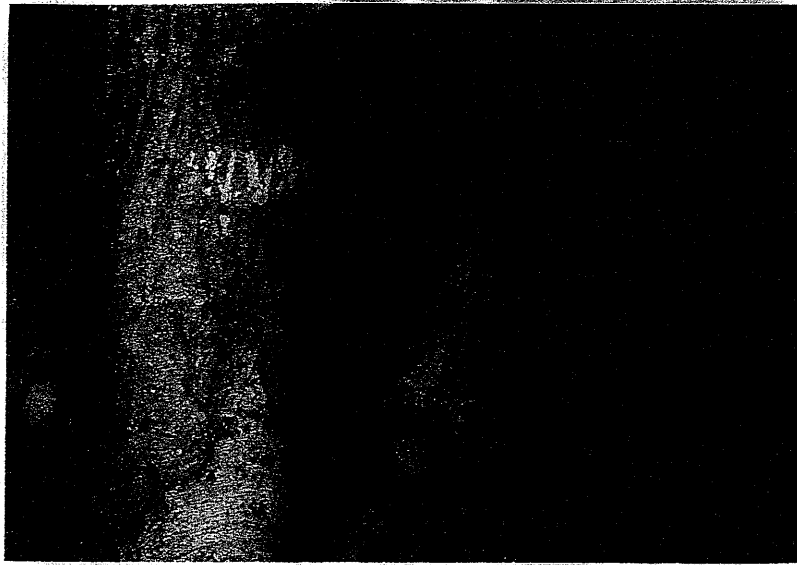


Fig. 2. The nest of fairy pitta. (Photo by C. T. Liang)



Fig. 3. The nest tree. The position of the nest is very discrete. It is not visible except from down slope next to dense vegetation. (Photo by L. L. Severinghaus)



Fig. 4. The nesting habitat of the fairy pitta. (Photo by L. L. Severinghaus)

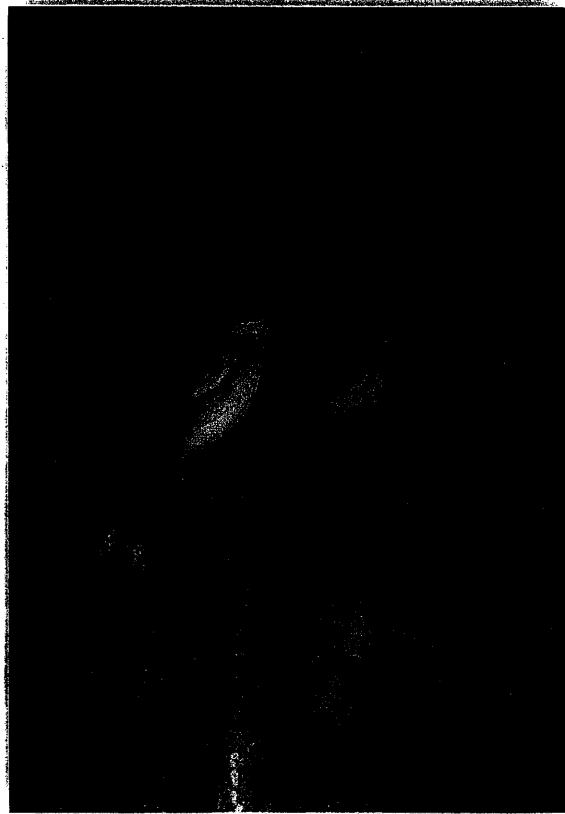


Fig. 5. A pair of fairy pitta. The red belly patch is slightly different in size on the two birds. They can also be distinguished by the olive brown throat patch on one. (Photo by H. M. Lo)

rest of the area under the canopy was at the edge of a cleared area. The opening of the spherical nest faced the downslope of a densely vegetated area (Fig. 3), so the adults did not enter the nest from the more exposed side of the tree. The nest was not easily visible from the cleared area either.

The nest was about 3 m off the ground. We could not climb up the tree to measure the nest, but its external vertical diameter was estimated to be around 20 cm. This measurement was within the range of the two reported by Kobayashi (1937). The horizontal diameter was limited by the distance of the two branches, which were about 45 degrees apart. At the time of discovery, two large young waited outside the entrance to be fed. They sought shelter in the nest soon after they were discovered when it started raining heavily. They were not seen again after this, and may have fled on that day. No adults were seen after 14 July either. No vocalizations were heard.

Chung-Cheng Campground sits on rolling hills about 300 m in elevation at the periphery of Taichung City. It is quiet and not heavily used. About 80% of the trees in this area are large acacias, the remainder being camphor trees (*Cinnamomum camphora*) and other broadleaf species (Fig. 4). There are orchards and bamboo plantations in the vicinity of the campground. Foot trails wind through the campground and a small stream cuts through its lower half.

Adults and Their Behavior

Apparently both parents contributed toward the rearing of the young, because both were repeatedly seen carrying food long before their nest. All except once they carried earthworms, while one time an adult was seen carrying a worm. Sometimes a number of earthworms were carried in one mouthful, like puffs

carrying several fishes back to their nests. The two adults could be separated externally. One individual had a small central olive-brown patch just below its throat. The size of the red belly patch was also smaller on this individual than on its mate.

We noticed that the two adults foraged most frequently in a 20 meter square area to the north of the nest. They often perched on three wooden stumps and a cement post, but rarely perched together or interacted with each other. Only once were they seen together on the cement post (Fig. 5). They were not particularly wary of people. If people froze when they were watching, they would relax and continue foraging. They were not disturbed by camera flashes, but seemed wary of noises.

Breeding Status

Bird catchers reported that fairy pittas were common between April and June every year, and large numbers could be caught then (Wu Sun-Hsiung, C. H. Li, pers. comm.). They claimed to have seen nests on the ground, and have removed eggs and young from them. However, except one blackish plumaged juvenile seen for sale in 1988 in Taipei by C. C. Sha (pers. comm.), no one else reported ever seeing live pittas for sale, young or adult. However, no pet store survey has been carried out in recent years to refute their claim either.

Perhaps the concentration of pittas in April and early May includes a large transient population on its way to southern China, while only a small portion remains to breed in Taiwan. This might explain why no bird watcher ever witnessed large numbers of pittas in the wild. Breeding pairs most likely are widely scattered, because the pair we observed were the only birds active in the campground. Based on the sighting and capturing records we compiled, this species should be a regular breeder in

Taiwan, even if limited in a few locations in low densities.

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八色鳥在臺灣之分布、狀況與繁殖

劉小如 梁皆得 謝孝同 羅俐娟

八色鳥是臺灣稀有的夏候鳥。本文報導第一次在野外觀察到八色鳥巢、繁殖棲地狀況、及親鳥育幼行為。另外也審閱目前所知所有有關臺灣鳥類之文獻，追蹤世界各地收藏之臺灣鳥類標本，以獲得八色鳥觀察或採集日期、地點、數量、性別等之相關資料。同時廣泛地在野外積極觀察鳥類之人士，徵詢觀察及捕捉資料，經分析整合，獲得對八色鳥在臺灣的分布及狀況之初步瞭解。

