*NEW BREEDING RECORD*

# First nest description and altitudinal range extension of the south Indochinese endemic Black-headed Parrotbill *Psittiparus margaritae*

ELIZE Y. X. NG, LE MANH HUNG, SHAOYUAN WU & FRANK E. RHEINDT

The Black-headed Parrotbill *Psittiparus margaritae* (Plate 1) is a Near Threatened species endemic to the montane forest of the Dalat Plateau, South Annam, Vietnam (BirdLife International 2019), with a very restricted range which extends only a short distance into the adjacent south-east Mondulkiri province of east Cambodia. It was recently uplifted to species level (Collar 2006) due to pronounced plumage differences from the more widely distributed Grey-headed Parrotbill *P. gularis* (Plate 2).

Black-headed Parrotbills are usually observed in broadleaf evergreen forest and adjoining scrub and bamboo and have been recorded between 850 and 1,500 m (Robson 2019a), although our own observations at Cong Troi, in the 648 km² Bidoup Núi Bà National Park, Lâm Đong, Vietnam, raised the species's upper altitudinal limit to 1,850 m when a lone individual was observed in a mixed flock moving through the forest during the late morning of 16 April 2019 (12.10°N 108.38°E).

The breeding habits of the species remain unknown, and here we present the first description of nesting behaviour. During ornithological fieldwork on the Dalat Plateau, we explored areas surrounding the Ho Tuyen Lâm Reservoir. On the western side of the lake there is a remnant pocket of broadleaf evergreen forest. In this small forest patch, a pair of Black-headed Parrotbill was discovered to be nesting on 26 April 2019. One

**Plate 1**. Black-headed Parrotbill *Psittiparus margaritae* on the Dalat Plateau, South Annam, Vietnam, 18 May 2019. Split from Grey-headed Parrotbill *P. gularis* on account of plumage features including a jet-black crown, dark-mottled ear-coverts and slightly richer rufous back.

NGUYEN MANH HIEP

bird was sitting on the nest (Plate 3), while the other was collecting nesting material in a nearby tree before returning to the nest. The nest was a neatly constructed cup made of elongated leaves (probably from grass and leaves in the vicinity) woven together on a forked branch of a broadleaf tree about 8–9 m above ground. It is unclear if eggs had been laid as the nest was too high to be reached without causing excessive disturbance to the nesting pair. The nest was located next to an open clearing along a trail in the forest patch (11.883°N, 108.408°E) at 1,380 m (Plate 4).

A second observation of the nest was made on the morning of 18 May 2019. However, at this time, the nest, albeit intact and in the same position, was not seen to be active (Plate 5). There was a gap of 22 days between the two observations, during which it would have been possible for chicks to successfully hatch and fledge. This hypothesis is compatible with observations of timing and duration of nesting, hatching and fledging in other parrotbills, e.g. Vinous-throated Parrotbill *Sinosuthora webbiana* (Robson 2019b). Alternatively, nesting may have failed and the adults could have abandoned the nest. Although the breeding behaviour and nest structure of the closely related Grey-headed Parrotbill are relatively well documented, data on the timing of hatching and fledging are lacking. The Grey-headed Parrotbill builds a similar cup-shaped nest of grass or bamboo leaves that has been observed to be constructed at 2 to 3 m above ground in reeds, tall grass, bamboo clumps or bushes, although nests have been recorded at up to 9 m high in trees (Robson 2019c).

The timing of the Black-headed Parrotbill nest observation ties in with the wet season for the region, which had commenced in early to mid-April. Between January and March the Black-headed Parrotbill has usually been seen in small flocks of up to four birds (authors' pers.

**Plate 3**. Nest of Black-headed Parrotbill near Ho Tuyen Lâm Reservoir, Dalat, Vietnam, 26 April 2019. The tail of a bird can be seen sticking out of the nest to the right.

ELIZE Y. X. NG

**Plate 2**. Grey-headed Parrotbill *P. gularis*, Chiang Mai, Thailand, 7 December 2016.

MOHIT KUMAR GHATAK

**Plate 4**. Photo of general habitat, with location of the nest on the tree marked with a red circle, 26 April 2019.

ELIZE Y. X. NG

NGUYEN MANH HIEP

**Plate 5**. The nest was apparently empty but still intact 22 days later, 18 May 2019.

AYUWAT JEARWATTANAKANOK

**Plate 6**. Grey-headed Parrotbill on a very similar nest, Chiang Mai, Thailand, 5 April 2014.

obs.), which coincides with the dry season when most bird observations are made on the Dalat Plateau. In contrast, during our ornithological fieldwork we primarily observed single birds in mixed flocks, indicating the possibility of nesting behaviour.

Our new record adds to the observation that *Psittiparus* nests in general are compact cups mostly located in low to medium-height vegetation (typically at least 2 m above ground), such as bamboo clumps, reeds and shrubs (Ma 1988, Li *et al*. 2019, Robson 2019a,c).

**Acknowledgements**

We would like to thank the editors for valuable comments. Special thanks go to Le Van Son of Bidoup Núi Bà National Park, and Nguyen Manh Hiep from the Conservation Division, Ministry of Agriculture and Rural Development. This research was partly funded by the Vietnam National Foundation for Science and Technology Development (NAFOSTED) to LHM under grant number 106-NN.05-2015.34, and supported by the National Natural Science Foundation of China (grant number 31772441 to SW and FER).

**References**

BirdLife International (2019) Species factsheet: *Psittiparus margaritae*. Accessed at http://www.birdlife.org on 20/05/2019.

Collar, N. J. (2006) A partial revision of the Asian babblers (Timaliidae). *Forktail* 22: 85–112.

Li W.-D, Stein, R. W., Wang X.-W & Luo X. (2019) First account of the breeding biology of Brown Parrotbill (*Cholornis unicolor*, Aves: Sylviidae) in Gaoligongshan National Nature Reserve, Yunnan, China. *Wilson J. Ornithol*. DOI: 10.1676/18–63.

Ma S.-Q. (1988) Studies on the population ecology of the Chinese crowtit. *Zool. Res.* 9(3): 217–224.

Robson, C. (2019a) Black-headed Parrotbill *Psittiparus margaritae*. *HBW Alive*. Accessed at https://www.hbw.com/node/59704 on 20/05/2019.

Robson, C. (2019b) Vinous-throated Parrotbill *Sinosuthora webbiana*. *HBW Alive*. Accessed at https://www.hbw.com/node/59708 on 20/05/2019.

Robson, C. (2019c) Grey-headed Parrotbill *Psittiparus gularis*. *HBW Alive*. Accessed at https://www.hbw.com/node/59703 on 06/06/2019.

***LE Manh Hung***
*Institute of Ecology and Biological Resources*
*Vietnam Academy of Science and Technology*
*18 Hoang Quoc Viet, Cau Giay, Hanoi, Vietnam*
*Email: Hungniltava@gmail.com*

***NG Ying Xin Elize and Frank E. RHEINDT***
*Department of Biological Sciences*
*National University of Singapore*
*14 Science Drive 4, Singapore*
*Email: elizeng@u.nus.edu; dbsrfe@nus.edu.sg*

***Shaoyuan WU***
*Jiangsu Key Laboratory of Phylogenomics and Comparative Genomics*
*School of Life Sciences, Jiangsu Normal University*
*Xuzhou 221116, Jiangsu, China*
*and Department of Biochemistry and Molecular Biology*
*2011 Collaborative Innovation Center of Tianjin for Medical Epigenetics*
*School of Basic Medical Sciences*
*Tianjin Medical University*
*Tianjin 300070, China*
*Email: shaoyuanwu@outlook.com*