

**SONG VARIATIONS IN THE WHITE-CHESTED BABBLER**  
***TRICHASTOMA ROSTRATUM***

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For few species of birds are the full range of songs and calls known, and in Indonesia little has been published concerning individual song Motives and full repertoires of forest birds, even though these may differ from published accounts based on mainland Asian individuals (or races). Field identification of Indonesian birds based on vocalizations described in current field guides may for this reason be difficult or even impossible.

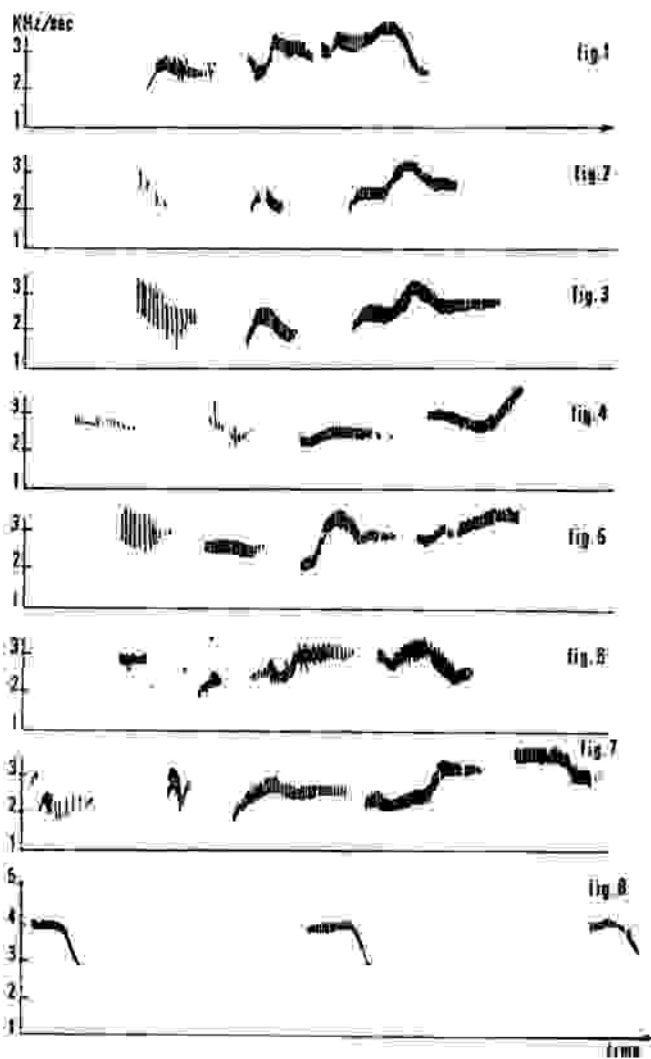
In this note variations in the full adult song of the male White-chested Babbler *Trichastoma rostratum* are described, as well as the call of the female bird. Tracings of the original sonograms (audio-spectograms) derived from tape-recorded songs are included to illustrate the descriptions. The tape-recordings were made between 30 April and 16 September, 1985, in both riverine forest and peat swamp forest habitats in the Padang-Sugihan wildlife Reserve, south Sumatra province. The recordings were examined on a Unigon 4500 Uniscan Spectrum Analyzer, and the sonograms were made on a Kay Digital Sono-Graph 7800 set to a wide (300 KHz) band range.

The White-chested Babbler ranges throughout the Malay peninsula, Sumatra and Borneo (King et al. 1975). Saythies (1981) describes the song of this babbler as a 'loud three-note call, 'lnta duit', and King et al. (1975) describes the song as a 'slurred whistle, chiry-biry-bee'. Medway 6 wells (1976) attribute to this species a 'four-part whistle' as well as a three-note whistle, 'in both cases with the last note stressed'. Teesdale (1967) describes the song from birds on the Malay peninsula as 'an elaborated two-syllable whistle', consisting of 'two stutters, a short note, two more stutters, and a second note, this being more emphatic than the first and rising in pitch in the middle'. In each reference only one or two song patterns are described, with no mention of the species having a wider repertoire. As well, not a single reference mentions the call note of the female.

The Padang-Sugihan tapes reveal that the male White-chested Babbler's song has at least 7 distinct variations, whereby the full song of the male is made up of three, four, or five notes, with the last note either rising or falling in pitch, and the first note either a harsh whistle or a short buzz. Different song patterns are used interchangeably and are not specific to individual males. The call note of the female bird does not vary from a single pattern, and is offered only in a responsive, imperfectly coordinated antiphonal duet with the male's song.

The male's song is made up of three, four, or five notes, with the four-note motive being the most commonly heard in the Padang-Sugihan reserve. The three-note call (Figure 1) is often, but not always, heard from an excited bird, when pre-recorded songs were played back to a male on territory to incite a response. When excited, the male would increase the frequency of its song, and sometimes drop one of the introductory notes. Figures 1, 2, and 3 illustrate the falling end-note, where the note finishes below 3 KHz/sec [1]. Figure 3 illustrates the three-note songs where the first note is a sharp buzz. The four-note song is made up

- (1) To divide the songs into two groups, those with a rising end-note and those with a falling end-note, the 3 KHz/sec line on the sonograms was adopted as the dividing line, to provide a standard point of reference of two somewhat harsh short introductory notes, immediately followed by two louder notes, either in a rising-falling combination



(See Teesdale 1967) or falling-rising combination. Figures 4 and 5 illustrate the four-note song with a rising end-note, that is, when the last note finishes above 3 KHz/sec. Figure 6 illustrates the four-note song with a falling end-note. In the Figure 5 sonogram the first note is given as a short buzz instead of a whistle, as in Figure 3. The first introductory notes may be faint and difficult to notice (see Teesdale 1967), as is shown by their faint rendition in Figure 4, or they may be very harsh as shown in the figure 6 bird. The five-note song is -de up of the two introductory notes, followed by a three-note combination of slurred whistles, shown in Figure 7. In this example the end-note is falling, and the authors have not recorded instances of a five-note song with a rising inflection, but this may occur. The authors have also not heard a six-note song as that described in Teesdale (1967), and this may represent yet a further song variation.

Individual male white-cheated Babblers select their song from this range of song motives, and change them frequently. Immediately following the Figure 1 sequence the bird sang a three-note version with a rising end-note. A different male produced the song illustrated in Figure 2, then changed to the Figure 3 song (with the introductory buzz), then changed again to the five-note song (Figure 7), before going back to the three-note song similar to that of figure 2. Another individual male produced a four-note song with a rising end-note, then changed to the falling end-note of Figure 6, then changed back to a rising end-note (Figure's), introduced by a buzz note. Apart from the instances where an excited bird dropped an introductory note, no discernable factor induced the males to change from one song pattern to another.

The female's call note is invariably a single 'teew' note, loud and with a sharply falling inflection (Figure 8). The note starts off higher in pitch than any of the male's notes, starting above 4 KHz/sec, and ending below 3 KHz/sec, and is uttered at approximately 0.6 second intervals. The note series, the single note repeated two to four times, is always given in conjunction with the male's song, forming an imperfectly coordinated antiphonal duet.

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We wish to thank Mr. Alien Warden of the Department of Zoology, University of Toronto, Canada, for having produced the sonograms from the tape-recordings. We also wish to thank the World Wildlife Fund Indonesia for allowing us to publish data collected at Padang-Sugihan under Program 3133.

#### Ringkasan

Rekaman suara panggilan dan kicauan burung *Trichastona rostratum* dibuat di hutan gambut Suaka Margasatwa Padang-Sugihan, Sumatra Selatan, pada tanggal 30 April 1985 dan 16 September 1985. Rekamannya diperiksa dengan Unigan 4500 Uniscan Analyzer dan sonogramnya dibuat dengan Kay Digital Sono-Graph 7800 pada kisaran jarak gelombang 300 kHz. variasi nada suara panggilan dan kicauan burung jantan betina *T. rostratum* secara lengkap, yang tidak ditemukan dalam bahan pustaka, dipertelakan dengan bantuan sonogram.

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SYNCHRONIZED ANTIPHOBAL DUETTING BY SHORT-TAILED  
BABBLERS *TRICHASTOMA MALACCENSIS*.

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Several babbler species are well known as duet singers, where the male bird's song is accompanied by one or several notes on the same pitch given by the female (Stuebing 1983). Armstrong (1963) divides responsive duelling into three categories: 1) the male's song calls forth an imperfectly coordinated response; 2) birds singing in regular alternation; and 3) the mate adds its utterance so promptly that the sequence sounds like a single stereotyped song. Nash and Nash (1985, 1986) described duetting response in the Abbott's Babbler *Trichastoma abbotti* and in the White-cheated Babbler *T. rostratum* as examples of imperfectly coordinated duets, whereby the male's song and the female's calls are not precisely synchronized, but simply overlapping. In each duet the number and timing of the female's notes are variable. In contrast, the duet between a pair of Short-tailed Babblers (*T. malaccense*) was found to be well synchronized, corresponding closely to the third category, with one bird's sequence immediately followed by the other's.

Tape recordings of the Short-tailed Babbler duet were made on 8 August, 1985, at 0800 hrs, in the Padang-Sugihan Wildlife Reserve, South Sumatra province. The recordings were examined on a Unigon 4500 Uniscan Spectrum Analyzer, and sonograms (audio spectrograms) were made on a Kay Digital Sono-Graph 7800 set to a wide (300 Khz) band range. Figures 1 and 2 were traced from the original sonograms.