

DESCRIPTION OF THE SONG OF  
*PURANA SAGITTATA* SCHOUTEN & DUFFELS  
 (HOMOPTERA, CICADIDAE) FROM  
 PENINSULAR MALAYSIA

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Songs of the cicada *Purana sagittata* were investigated. The sound emission analysis is based on 25 recordings of different individuals from four localities in Malaysia. Described are two similar but clearly different song patterns, one from Belum and Gombak and a second from Endau Rompin.

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The *Purana sagittata* was described as a member of the *Purana carmentis* group by Schouten & Duffels, 2002 (this issue) and is known from Peninsular Malaysia, Borneo and Sumatra.

From the genus *Purana* only the songs of *Purana aff. tigrina* from Ko Tarutao, Thailand (Gogala 1995) and *Purana nebulilinea* (Walker, 1868) from Peninsular Malaysia (Kos & Gogala 2000) have been described until now.

#### MATERIAL AND METHODS

Songs of *Purana sagittata* were recorded in the field using a TELINGA PRO III and PRO V parabolic microphones (parabola diameter 57 cm) connected to SONY DAT-recorders TCD-D3 and TCD-D10 (sampling rate 48 kHz, 16 Bit dynamic range). In the lab, DAT recordings were transferred to the hard disk of a POWER MACINTOSH G3/233 MHz computer through an AUDIOMEDIA III sound card. For viewing, editing and analyzing the song signals we used DIGIDESIGN PROTOOLS 4.1, and CANARY 1.2. Altogether 25 recordings of different individuals were used for analyses. For statistical evaluation we used the MICROSOFT EXCEL 97 and STATVIEW 4.5.

Voucher specimens of cicadas from Gombak are preserved in the collection of the Slovenian Museum of Natural History (PMSL) in Ljubljana. A single male, which was first recorded and then collected in the sec-

ondary forest of Gombak Field Station (Selangor, Kuala Lumpur, Ulu Gombak, Gombak Field Station) on 25. May 1996, is used as the holotype (Schouten & Duffels 2002).

#### RESULTS

The analysis of the sound emission of *Purana sagittata* is based on 25 recordings of different individuals from four localities: six recordings from Perak, Belum (5°30'07"N, 101°26'21"E) on 23. March, 1. April and 5. April 1994, seven recordings from Selangor, Gombak Field Station (3°19'47"N, 101°45'15"E) made on 17, 18, 19, 21 and 25 May 1996 and eleven recordings from Johor, Endau Rompin, Kuala Jasin (2°31'38"N, 103°22'25"E) made on 11 June 1996 and one recording from the same locality on 24 March 1999.

We can distinguish two similar but clearly different song patterns: *P. sagittata* from Belum and Gombak and *P. sagittata* from Endau Rompin. The samples of both types of the song could be found at home page: <http://www2.pms-lj.si/staff/bioacoustics/asiaw.html>

#### *Purana sagittata* from Belum and Gombak

The high pitched song of *Purana sagittata* from Belum and Gombak is composed of two distinctly different phrases (PH) (fig. 1a), which follow each other without a pause. Duration of the song is 55.72

