

Taxon	Delta time 1a (s)	Low freq 1a (kHz)	High freq 1a (kHz)	Bandw 90% 1a (kHz)	Centre freq 1a (kHz)	Delta time 1b (s)	Low freq 1b (kHz)	High freq 1b (kHz)	Bandw 90% 1b (kHz)	Centre freq 1b (kHz)	Total duration (s)	N
<i>L. chengi</i> , sp. nov.	0.136	2.119	3.557	0.743	2.836	0.064	2.234	3.441	0.604	2.820	0.261 ±	53
	±	±	±	±	±	±	±	±	±	±	0.021	
	(0.083	(1.434	(2.972	(0.563	(2.438	(0.045	(1.795	(2.955	(0.563	(2.438	(0.207 – 0.320)	
<i>L. m. mandelli</i> , <i>L. m. melanorhyncha</i>	–	–	–	–	–	–	–	–	–	–	0.274 ±	51
	0.193)	2.858)	4.336)	0.900)	3.525)	0.104)	2.911)	4.174)	0.750)	3.563)	0.040	
	(0.118	(3.027	(4.227	(0.563	(3.600	(0.011	(3.163	(4.190	(0.563	(3.750	(0.199 – 0.372)	
<i>L. idonea</i>	0.234	3.525	4.993	0.763	4.313	0.079	3.786	4.945	0.625	4.388	0.317 ±	3
	±	±	±	±	±	±	±	±	±	±	0.061	
	(0.209	(3.365	(4.874	(0.675	(4.125	(0.058	(3.588	(4.747	(0.563	(4.163	(0.269 – 0.385)	
<i>L. seebohmi</i>	0.262)	3.702)	5.165)	0.863)	4.500)	0.115)	3.923)	5.158)	0.713)	4.500)	0.173 ±	7
	0.105	3.385	4.754	0.813	4.093	0.064	3.513	4.743	0.680	4.130	0.015	
	(0.084	(2.967	(4.335	(0.788	(3.750	(0.061	(3.123	(4.307	(0.563	(3.750	(0.151 – 0.192)	
<i>L. montis</i> Java	0.122)	3.715)	5.210)	0.863)	4.350)	0.066)	3.802)	5.100)	0.750)	4.350)	0.301 ±	24
	0.215	2.787	4.227	0.829	3.584	0.080	2.669	3.925	0.695	3.295	0.035	
	(0.163	(1.985	(3.662	(0.750	(3.000	(0.048	(1.827	(2.841	(0.563	(2.325	(0.244 – 0.374)	
<i>L. montis</i> Bali	–	–	–	–	–	–	–	–	–	–	0.363 ±	10
	0.302)	3.510)	4.759)	0.984)	4.200)	0.103)	3.360)	4.420)	0.938)	3.900)	0.040	
	(0.253	(1.935	(3.667	(0.000	(3.000	(0.049	(1.689	(2.991	(0.600	(2.325	(0.306 – 0.439)	
<i>L. timorensis?</i> (Alor)	0.357)	2.278)	5.167)	1.050)	4.125)	0.075)	1.961)	3.398)	0.863)	2.625)	0.363 ±	6
	0.106	3.697	5.024	0.781	4.375	0.061	3.686	4.787	0.631	4.213	0.07	
	(0.098	(3.261	(4.583	(0.675	(3.938	(0.048	(3.286	(4.408	(0.563	(3.825	(0.165 – 0.182)	
<i>L. timorensis</i> (Timor)	–	–	–	–	–	–	–	–	–	–	0.172 ±	5
	0.112)	4.164)	5.346)	0.863)	4.800)	0.069)	4.158)	5.164)	0.675)	4.688)	0.011	
	(0.125	(2.965	(4.348	(0.713	(3.750	(0.051	(2.921	(4.043	(0.600	(3.413	(0.185 – 0.215)	
	0.151	3.181	4.710	– 0.938	– 4.013	–	–	–	– 0.750	– 3.563	0.202 ±	

Table S3. Univariate measurements of song variables of the *Locustella mandelli* complex. 1a – lowamp part of principal note; 1b – highamp part of principal note; see Fig. 2 for further explanation of terms.