

## Appendix 8

Table A8. Principal component analysis results illustrating the contribution of acoustic features in the first four principal components to the sex variation of pip calls, sorted in decreasing order according to the total squared cosine ( $\cos^2$ ) score of the first two principal components (values more than 0.8 in bold).

Acoustic features	Loadings				Cos <sup>2</sup>		
	PC1	PC2	PC3	PC4	PC1	PC2	Total
maxdom	-0.2942	0.0203	-0.0421	0.0189	0.9641	0.0023	<b>0.9664</b>
top.freq	-0.2912	0.0233	-0.0265	0.0319	0.9447	0.0030	<b>0.9477</b>
freq.Q75	-0.2890	0.0342	-0.0890	0.0667	0.9304	0.0065	<b>0.9369</b>
time.Q75	0.0030	-0.4086	-0.0808	-0.0346	0.0001	0.9317	<b>0.9318</b>
time.median	-0.0155	-0.4041	-0.0735	-0.0258	0.0027	0.9114	<b>0.9141</b>
duration	0.0159	-0.4027	-0.0899	-0.0339	0.0028	0.9054	<b>0.9082</b>
meanpeakf	-0.2753	0.0277	-0.0787	0.1209	0.8441	0.0043	<b>0.8484</b>
meandom	-0.2736	0.0241	-0.1620	0.0640	0.8339	0.0032	<b>0.8372</b>
time.IQR	0.0153	-0.3832	-0.0920	-0.0616	0.0026	0.8197	<b>0.8223</b>
time.Q25	-0.0148	-0.3791	-0.0518	0.0094	0.0025	0.8020	<b>0.8045</b>
freq.median	-0.2600	0.0456	-0.1890	0.1370	0.7528	0.0116	0.7644
meanfreq	-0.2489	0.0588	-0.2332	0.0693	0.6900	0.0193	0.7093
entropy	-0.2340	-0.1207	0.1371	-0.1892	0.6101	0.0814	0.6914
sp.ent	-0.2268	-0.1161	0.1217	-0.2563	0.5729	0.0752	0.6482
sd	-0.2382	-0.0302	0.2590	0.0804	0.6319	0.0051	0.6370
freq.IQR	-0.2358	-0.0404	0.2606	-0.0224	0.6194	0.0091	0.6285
bw	-0.2287	0.0046	0.2539	0.1423	0.5828	0.0001	0.5829
sfm	-0.2029	-0.0946	0.1495	-0.2320	0.4585	0.0500	0.5084
dfrange	-0.2104	-0.0345	0.2698	0.0551	0.4932	0.0066	0.4998
modindx	-0.0381	-0.2669	-0.0472	-0.2175	0.0162	0.3976	0.4138
startdom	-0.1624	0.1427	-0.1293	-0.1549	0.2937	0.1137	0.4074
freq.Q25	-0.1770	0.0802	-0.3430	0.1074	0.3488	0.0359	0.3846
enddom	-0.1617	-0.1007	-0.1805	0.1142	0.2912	0.0566	0.3478
skew	0.0918	-0.1336	-0.0028	0.5185	0.0938	0.0996	0.1934
kurt	0.0533	-0.1360	0.0038	0.4949	0.0317	0.1033	0.1349
dfslope	0.0190	-0.1235	-0.0378	0.2012	0.0040	0.0851	0.0891
time.ent	-0.0786	-0.0502	0.0813	0.2720	0.0689	0.0141	0.0830
mindom	-0.0532	0.0685	-0.4044	-0.0516	0.0315	0.0262	0.0577
bottom.freq	0.0412	0.0173	-0.4085	-0.1805	0.0189	0.0017	0.0206
Standard deviation	3.3373	2.3626	2.1299	1.5754			
Proportion of Variance	0.3841	0.1925	0.1564	0.0856			
Cumulative Proportion	0.3841	0.5765	0.7330	0.8186			
Eigenvalue	11.1379	5.5818	4.5366	2.4818			