

Table S1. Eigenvalues of the correlation matrix of the principal component analysis

PC	Eigenvalue	Difference	Cumulative	Proportion
1	2.89277185	1.15532347	0.3616	0.3616
2	1.73744838	0.24561962	0.2172	0.5788
3	1.49182876	0.68593583	0.1865	0.7653
4	0.80589293	0.20103049	0.1007	0.8660
5	0.60486244	0.13767157	0.0756	0.9416
6	0.46719087	0.46718611	0.0584	1.0000
7	0.00000477	0.00000477	0.0000	1.0000

PC1 accounts for 36.16% of the variation in the data, PC2 accounts for 21.72% and PC3 accounts for 18.65%. Those three PCs together account for 76.53% of the variation and they are the only ones with eigenvalues >1.

Table S2. Relative contribution of call variables to the principal components

Call variable	PC1	PC2	PC3
Pulse duration	0.090632	-0.151037	0.620713
Duty cycle	0.186921	-0.109060	0.578823
Sweep rate	0.000463	0.615816	-0.204116
Maximum frequency	0.549517	0.202780	-0.060987
Minimum frequency	0.513313	-0.280338	-0.243356
Peak frequency	0.572671	-0.039919	-0.163150
Bandwidth	0.058025	0.648559	0.242518

For PC1, the spectral variables peak frequency, maximum frequency and minimum frequency have higher factor loading (>0.51) than the other variables (<0.18). PC2 is defined by sweep rate and bandwidth with factor loadings >0.62, in comparison to <0.20 for the others. Finally, PC3 includes the time-related variables pulse duration and duty cycle, which show factor loadings >0.58 (other variables <0.24).