**Supplementary Material**

|  |
| --- |
| **Table S1 - Statistical results of the correlations (Pearson or Spearmann) between the acoustic parameters (LApeak, LAmax and LAeq) and the behavioural categories recorded during the 15-minute acoustic measurements in the study of *Choloepus didactylus* housed in a walk-through enclosure, in a zoo in the United Kingdom.** |
| **Behavioural Category** | **LApeak** | **LAmax** | **LAeq** |
|  | **P** | **r** | **P** | **r** | **P** | **r** |
| Inactivity | 0.931 F0.002 M | -0.02 (P)-0.51 (P) | 0.924 F0.001 M | -0.02 (P)-0.52 (P) | 0.445 F0.001 M | -0.13 (P)-0.53 (P) |
| Locomotion | 0.867 F<0.001 M | 0.03 (S)0.56 (P) | 0.884 F<0.001 M | 0.03 (S) 0.56 (P) | 0.676 F0.002 M | 0.07 (S)0.51 (P) |
| Maintenance | 0.479 F0.008 M | 0.12 (S)0.44 (P) | 0.478 F0.008 M | 0.12 (S)0.44 (P) | 0.379 F0.015 M | 0.15 (S)0.41 (P) |
| Foraging | 0.811 F0.216 M | -0.04 (S)-0.21 (S) | 0.831 F0.193 M | -0.04 (S)-0.23 (S) | 0.745 F0.183 M | -0.06 (S)-0.23 (S) |
| Sexual behaviour | 0.436 F0.436 M | -0.14 (S)-0.14 (S) | 0.436 F0.436 M | -0.14 (S)-0.14 (S) | 0.436 F0.436 M | -0.14(S)-0.14 (S) |
| Affiliative interaction | 0.445 F0.403 M | 0.13 (S)0.15 (S) | 0.472 F0.432 M | 0.13 (S)0.14 (S) | 0.237 F0.201 M | 0.20 (S)0.22 (S) |
| Agonistic interaction | 0.560 F0.560 M | -0.10 (S)-0.10 (S) | 0.560 F0.560 M | -0.10 (S)-0.10 (S) | 0.771 F0.771 M | -0.05 (S)-0.05 (S) |
| Non-visible | 0.017 F0.254 M | 0.40 (S)0.20 (S) | 0.017 F0.254 M | 0.40 (S)0.20 (S) | 0.069 F0.222 M | 0.31(S)0.21 (S) |

\*M – Male / F – Female

\*\*S – Spearman / P – Pearson

|  |
| --- |
| **Table S2 - Statistical results of the correlations (Pearson or Spearmann) between the acoustic parameters (LApeak, LAmax and LAeq) and the behavioural categories recorded during the 24 hours after acoustic measurements in the study of *Choloepus didactylus* housed in a walk-through enclosure, in a zoo in the United Kingdom.** |
| **Behavioural Category** | **LApeak** | **LAmax** | **LAeq** |
|  | **P** | **r** | **P** | **r** | **P** | **r** |
| Inactivity | 0.217 F0.075 M | -0.46 (P)-0.62 (P) | 0.197 F0.063 M | -0.47 (P)-0.64 (P) | 0.371 F0.252 M | 0.34 (P)0.43 (P) |
| Locomotion | 0.952 F0.085 M | 0.02 (P)0.60 (P) | 0.971 F0.086 M | 0.01 (P)0.60 (P) | 0.463 F0.990 M | 0.28 (P)-0.005 (P) |
| Maintenance | 0.822 F0.285 M | 0.09 (P)0.40 (P) | 0.843 F0.288 M | 0.08 (P)0.40 (P) | 0.548 F0.981 M | 0.23 (P)0.009 (P) |
| Foraging | 0.443 F0.058 M | 0.29 (P) -0.65 (P) | 0.437 F0.050 M | 0.30 (P)-0.67 (P) | 0.505 F0.577 M | -0.26 (P)0.22 (P) |
| Sexual behaviour | 0.270 F0.270 M | -0.41 (S)-0.41 (S) | 0.270 F0.270 M | -0.41(S)-0.41 (S) | 0.948 F0.948 M | 0.02(S)0.02 (S) |
| Affiliative interaction | 0.318 F0.322 M | 0.38 (P)0.37 (P) | 0.316 F0.320 M | 0.38 (P)0.37 (P) | 0.870 F0.875 M | 0.60 (P)0.06 (P) |
| Agonistic interaction | 0.194 F0.194 M | 0.48 (S)0.48 (S) | 0.194 F0.194 M | 0.48 (S)0.48 (S) | 0.270 F0.270 M | 0.41 (S)0.41 (S) |
| Non-visible | 0.374 F0.735 M | -0.34 (P)0.13 (P) | 0.363 F0.713 M | -0.35 (P)0.14 (P) | 0.488 F0.603 M | -0.27(P)-0.20 (P) |

\*M – Male / F – Female

\*\*S – Spearman / P – Pearson

Figure S1

a)

b)

**Figure S1 – Activity budget of the male (a) and the female (b) *Choloepus didactylus* housed in a walk-through enclosure, in a zoo in the United Kingdom. Data collected during nine days, with different intensities of visitation.**