

Table S1. Published studies on the vocal repertoire of the African Penguin (*Spheniscus demersus*).

| Author(s) | Setting (wild/captive) | Number of penguins | Period of observation | Vocalisation | Behavioural context(s) | Acoustic measurements | Spectrographic representation |
|------------------------------|------------------------|--------------------|-----------------------|------------------------------|---|-----------------------|-------------------------------|
| Eggleton & Siegfried (1977) | Wild | 130 | Year round | <i>Ecstatic display song</i> | Territorial defence. This call was also suggested to signal availability for pairing and to communicate individual identity | No | No |
| | | | | <i>Aggressive braying</i> | Aggression | No | No |
| | | | | <i>Hissing</i> | Threat: emitted by chicks and juveniles towards external adults that approach the nest | No | No |
| | | | | <i>Aggressive barking</i> | Aggression: occurred between moulting juveniles and adults | No | No |
| | | | | <i>Growling</i> | Aggression: emitted simultaneously with pecking behaviour | No | No |
| | | | | <i>Mutual display song</i> | Reunion between members of the pair. This call was also observed as a stimulation to begging from parents to chicks | No | No |
| Jouventin (1982) | N/A | N/A | N/A | <i>Ecstatic display song</i> | N/A | No | Yes |
| | Wild | 5 | N/A | <i>Contact call</i> | Visual isolation: for maintaining acoustic contact when floating on the sea surface | No | No |
| | N/A | N/A | N/A | <i>Mutual display song</i> | N/A | No | Yes |
| Thumser <i>et al.</i> (1996) | Captive | 12 | Breeding season | <i>Bray call</i> | Territorial defence but also suggested as signalling availability for pairing | Yes | No |

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|-------------------------|------------|----------|--------|------------------|--|-----|-----|
| Thumser & Ficken (1998) | Captive 15 | Breeding | season | <i>Bray call</i> | Territorial defence but also for attracting partners | Yes | Yes |
| | | | | <i>Haw</i> | Visual isolation: emitted to identify penguins' position | Yes | Yes |
| | | | | <i>Yell</i> | Aggression: emitted during agonistic encounters | No | No |
| | | | | <i>Throb</i> | Emitted by pairs in the nest | No | No |
| | | | | <i>Peep</i> | Uttered by chicks in the nest as a food request | No | No |

Note: N/A = information not available.

References

- Eggleton P, Siegfried WR. (1977) Displays of the Jackass Penguin. *Ostrich* 50 (3): 139-167.
- Jouventin P. (1982) Visual and Vocal Signals in Penguins, Their Evolution and Adaptive Characters. *Adv Ethol* 58 (S24): 3-148.
- Thumser NN, Karron JD, Ficken MS. (1996) Interspecific variation in the call of *Spheniscus* penguins. *Wilson Bulletin* 108: 72-79.
- Thumser NN, Ficken MS. (1998). A comparison of the vocal repertoires of captive *Spheniscus* penguins. *Marine Ornithology* 26: 41-48.