**Table S2.** qPCR target genes, primer/probe sequences and reaction conditions for MST candidates Seal\_Bifido (Bifidobacteriaceae), *Fournierella*, *Atopobium, Slackia\_1, Slackia\_2,* and targeting seal feces.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Marker** | **Primers/probe** | **Sequences (5'-3')** | **Product size (bp)** | **Reaction conditions** | **Sensitivity (n of samples)/ specificity (n of samples)** |
| **Seal\_Bifido (Bifidobacteriaceae)** | ***Seal\_Bifido\_F***  ***Seal\_Bifido\_R*** | AAAGTGAGAGTACCTCGC  CTCTACCGCACTCAAGTCAA | 191 | 1 cycle of 10 min at 95°C and 40 cycles of 15 sec 95°C and 1 min 60°C+ 1 dissociation step | Sensitivity of 89.8% (n=49 grey seals); specificity of 97.1% (n=69 non-target samples) |
| ***Fournierella*** | ***Fournierella\_F***  ***Fournierella\_R*** | CGGTACCTAAGAAGAAAGCCA  TCTGCACCACTCAAGAATAG | 183 | 1 cycle of 10 min at 95°C and 40 cycles of 15 sec 95°C and 1 min 60°C + 1 dissociation step | n. t. |
| ***Atopobium*** | ***Atopobium\_F***  ***Atopobium\_R*** | CAGCAGGGATGAGAAAAGACA  CTATGGTTTCAGAAGCGGCTC | 186 | 1 cycle of 10 min at 95°C and 40 cycles of 15 sec 95°C and 1 min 60°C+ 1 dissociation step | n. t. |
| ***Slackia\_1*** | ***Slackia\_F***  ***Slackia\_1\_R*** | TTCGGCAGGGAAGAATTTT  GACGGTGCCGCTTGAGGA | 146 | 1 cycle of 10 min at 95°C and 40 cycles of 15 sec 95°C and 1 min 60°C+ 1 dissociation step | n. t. |
| ***Slackia\_2*** | ***Slackia\_F***  ***Slackia\_2\_R*** | TTCGGCAGGGAAGAATTTT  CGCCTCAGCGTCAGTGCC | 302 | 1 cycle of 10 min at 95°C and 40 cycles of 15 sec 95°C and 1 min 60°C+ 1 dissociation step | n. t. |

n. t.: not tested; F: Forward; R: Reverse