**Supplementary Table S1.** Biological data of sampled wild red-billed tropicbirds (*Phaethon aethereus*) and brown boobies (*Sula leucogaster*) breeding in Abrolhos Archipelago, Brazil, and concentration of selected metals and metalloids (As - arsenic; Cu - copper; Hg - mercury), reported by Nunes et al. (2022); NI = Not Identified; NA = Not analyzed.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | **Element concentrations (mg.Kg-1dry mass)\*** |  |
|  |  |  | As | Cu | Hg |  |
| **Seabird Sample ID** | **Collection date****(mm/yyyy)** | **Sex** | Blood | Feathers | Blood | Feathers | Blood | Feathers | Abrolhos Archipelago |
| Red-billed tropicbirds | 44P-P7 | NI | NI | 0.25 | 0.58 | 0.27 | 1.19 | 0.25 | 0.17 | Santa Bárbara |
| 67P-P13 | 03/2022 | NI | 4.06 | 0.83 | 10.92 | 0.71 | 0.33 | 0.04 | Siriba |
| 71P-P17 | 03/2022 | NI | 3.10 | 3.40 | 5.36 | 0.96 | 0.25 | 0.03 | Santa Bárbara |
| 75P-P21 | 03/2022 | NI | NA | 3.90 | NA | 1.97 | NA | 0.03 | Santa Bárbara |
| 78P-P22 | 03/2022 | NI | 4.25 | 1.49 | 8.76 | 0.46 | 0.27 | 0.02 | Santa Bárbara |
| 81P-P24 | 03/2022 | NI | 20.49 | 4.85 | 20.27 | 0.16 | 1.42 | 0.08 | Santa Bárbara |
|  |  26U-S6 | 09/2021 | Female | 0.42 | 0.10 | 0.16 | 0.24 | 0.41 | 0.32 | Redonda |
| Brown boobies | 28U-S8 | 08/2021 | Male | 0.80 | 0.05 | 0.19 | 0.12 | 0.93 | 0.17 | Redonda |
| 29U-S9 | 08/2021 | Male | 0.72 | 0.02 | 0.38 | 0.06 | 1.05 | 0.09 | Redonda |
| 30U-S10 | 08/2021 | Female | 0.38 | 0.068 | 0.312 | <0.05 | 0.42 | 0.04 | Redonda |
| 66U-S14 | 03/2022 | Male | 1.05 | 2.76 | 2.09 | 0.42 | 0.11 | 0.34 | Sueste |
| 67U-S15 | 03/2022 | Female | 2.05 | 0.064 | 2.74 | 0.65 | 0.28 | 0.04 | Sueste |
| 68U-S16 | 03/2022 | Male | 2.02 | 0.95 | 2.61 | 0.65 | 0.18 | 0.02 | Sueste |
| 69U-S17 | 03/2022 | Male | 1.64 | 1.34 | 0.82 | 0.72 | 0.28 | 0.02 | Sueste |
| 70U-S18 | 03/2022 | Female | 3.08 | 0.53 | 2.32 | 0.11 | 0.39 | 0.36 | Sueste |
| 71U-S19 | 03/2022 | Female | 1.48 | 0.62 | 1.32 | 0.10 | 0.34 | 1.94 | Sueste |
| 72U-S20 | 03/2022 | Female | 1.82 | 0.58 | 0.50 | 0.16 | 0.28 | 1.74 | Sueste |

**Supplementary Table S2.** Sequence of primers used to detect heavy metal resistance genes, and virulence factors tested in this study.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Gene** | **Primer** | **sequence (5' - 3')** | **bp1** | **AT2** | **Controle** |  **Reference** |
| **Arsenic** |
| *arsA\_I* | arsA\_I F | GGCAATYGCCGCAGCAAT | 643 | 58° | *Enterococcus faecalis* ATCC 29212 | Rebelo et al. (2021) |
| arsA\_I R | TGATCCAGAAGCAGAGAAAAAGT |
| *arsA\_II* | arsA\_II F | GTAGAAGGTTTAGTTGTCGCCA  | 728 | 62° | *Listeria. monocytogenes* ALD11249.1 |
| arsA\_II R | TGTAAGTGRGGAAATTCTTTTGGT |
| **Cooper** |
| *tcrB* | tcrB F  | CATCACGGTAGCTTTAAGGAGATT  | 663 | 56° | *Enterococcus faecalis* ATCC 29212 | Hasman and Aarestrup (2002) |
| tcrB R | TTCATAGAGGACTCCGCCACCATTG |
| **Mercury** |
| *merAIII/V/VI* | merAIII/V/VI\_F | GGTTGGTAACAGAAGAAGAAAG | 270 | 54° | *Enterococcus faecalis* ATCC 29212 | Mannu et al. (2003) |
| merAIII/V/VI\_R | GCCATTGTTAAATATGGCTGC |
| **Collagen-binding protein** |
| *ace* | ace1 F  | AAAGTAGAATTAGATCACAC | 320 | 59° | *E. faecalis* 529 | Mannu et al. (2003) |
| ace2 R | TCTATCACATTCGGTTGCG |
| **Cytolysin** |  |  |  |
| *cylA* | cylA TE17  | TTCTACAGTAAATCTTTCGTCA | 517 | 59° | *Enterococcus faecalis* ATCC 29212 | Eaton and Gasson (2001) |
| cylA TE18 | TGGATGATAGTGATAGGAAG |
| **Gelatinase** |  |  |  |
| *gelE* | gelE\_F | ACCCCGTATCATTGGTTT | 419 | 50° | *E. faecalis* 529 | Eaton and Gasson (2001) |
|  | ACGCATTGCTTTTCCATC |
| **Enterococcal-superficial protein** |  |  |  |
| *esp* | esp46 F  | TTACCAAGATGGTTCTGTAGGCCC | 913 | 60 | *E. faecalis* 529 | Shankar et al. (1999)al. |
| esp49 R | CAAGTATACTTAGCATCTTTTGG |
|  |  |  |  |  |  |  |

1 bp (base pair);

2 AT (annealing temperature in **°**C)

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