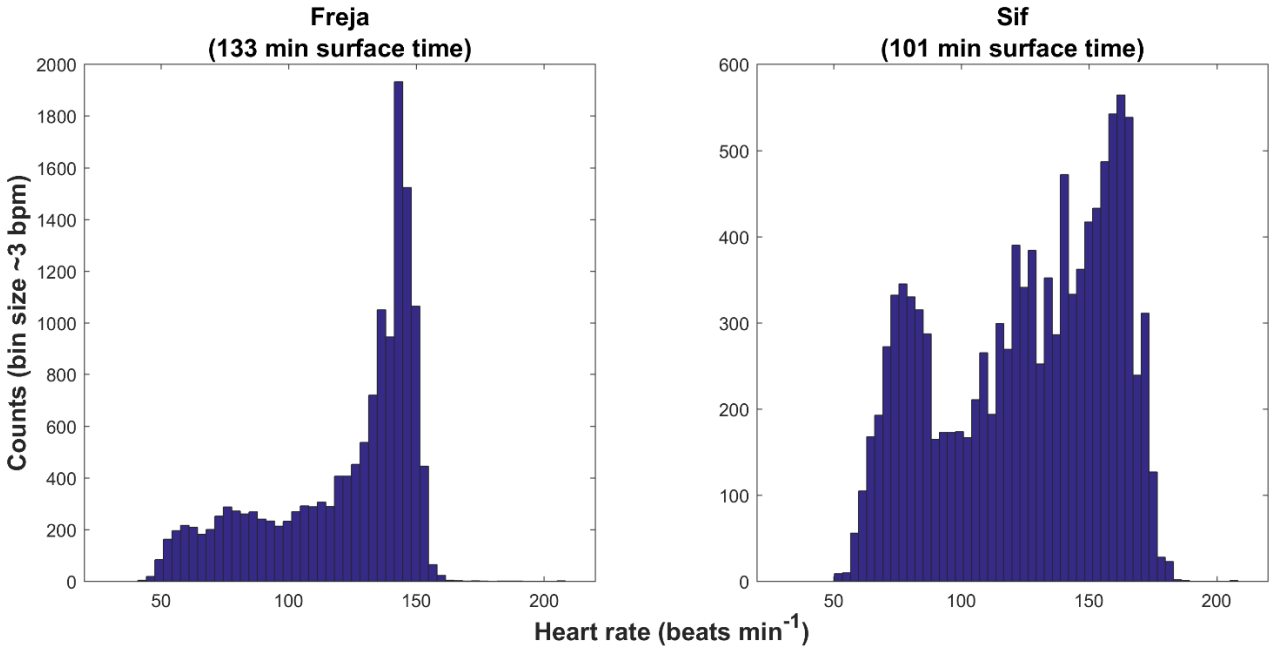


**Fig S1. Bimodal $f_H$ of the harbour porpoises.** Histograms of $f_H$ during surface intervals (30 seconds preceding and 30 seconds following tasks) for each porpoise. To find the most prevalent $f_H$ of tachycardia and bradycardia, we found the mode of $f_H$ below and above 100 beats min$^{-1}$. The high $f_H$ mode was 143 (Freja) and 162 (Sif) beats min$^{-1}$, and the low $f_H$ mode was 76 (Freja) and 77 (Sif) beats min$^{-1}$. 50 bins and $f_H$ ranges of 41-208 (Freja) and 50-208 (Sif) beats min$^{-1}$ result in bin sizes of ~3 beats min$^{-1}$.

**Table S1**. Breath-hold duration and $f_H$ parameters of tasks performed. Calculations of $f_H$ are based on the initial 15 seconds of the tasks, except beaching (B) which are based on the 15 second beaching period.

| **Animal** | **Task** | **n** | **Duration** *(seconds) mean* | **Minimun $f_H$** *(beats min$^{-1}$) mean ±s.e.m.* | **Mean $f_H$** *(beats min$^{-1}$) mean ±s.e.m.* | **Median $f_H$** *(beats min$^{-1}$) mean ±s.e.m.* | **Lower quartile $f_H$** *(beats min$^{-1}$) mean ±s.e.m.* |
|---|---|---|---|---|---|---|---|
| Freja | DSw | 24 | 22.1 | 87.1 ±3.6 | 121.7 ±2.4 | 123.6 ±2.9 | 108.8 ±3.3 |
| | VSw | 27 | 19.1 | 66.3 ±1.2 | 111.4 ±1.9 | 116.4 ±3.1 | 84.6 ±2.8 |
| | ST | 24 | 20.1 | 54.0 ±1.1 | 85.9 ±2.0 | 66.7 ±2.0 | 58.8 ±1.5 |
| | DSt | 26 | 20.0 | 68.7 ±2.5 | 106.9 ±2.5 | 102.0 ±3.5 | 84.0 ±3.1 |
| | VSt | 27 | 20.3 | 69.2 ±1.6 | 114.1 ±2.1 | 118.8 ±3.3 | 94.4 ±3.0 |
| | B | 5 | 17.4 (40.4) | 59.7 ±1.8 | 92.3 ±1.1 | 92.0 ±2.8 | 78.5 ±2.9 |
| Sif | DSw | 12 | 16.5 | 127.8 ±4.3 | 161.0 ±2.4 | 165.3 ±2.3 | 151.8 ±3.5 |
| | VSw | 15 | 17.3 | 97.0 ±3.3 | 139.4 ±3.0 | 145.8 ±3.7 | 121.0 ±3.1 |
| | ST | 25 | 20.6 | 56.8 ±0.6 | 87.4 ±1.9 | 74.1 ±1.2 | 63.5 ±0.7 |
| | DSt | 24 | 19.8 | 57.1 ±0.7 | 83.1 ±2.1 | 72.1 ±1.8 | 63.2 ±0.8 |
| | VSt | 25 | 19.4 | 78.5 ±1.0 | 127.4 ±1.8 | 134.1 ±2.8 | 97.0 ±2.2 |

**Table S2**. Results (p-values) from Games-Howell post hoc analysis of lower quartile $f_H$ to examine which task $f_H$ differ and which group. Symbols: ns (not significant), * ($p \leq 0.05$), ** ($p \leq 0.01$), *** ($p \leq 0.001$).

| | Freja | | | | Sif | | | |
|---|---|---|---|---|---|---|---|---|
| | **DSw** | **VSw** | **DSt** | **VSt** | **DSw** | **VSw** | **DSt** | **VSt** |
| **VSw** | *** | | | | *** | | | |
| **DSt** | *** | ns | | | *** | *** | | |
| **VSt** | * | ns | ns | | *** | *** | *** | |
| **ST** | *** | *** | *** | *** | *** | *** | ns | *** |