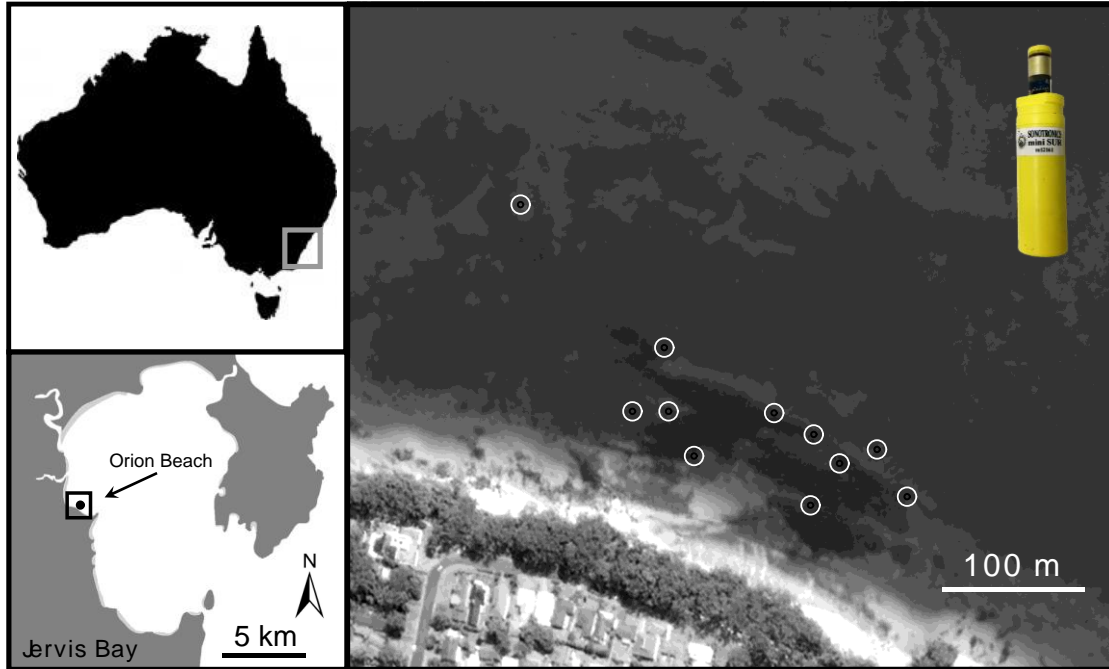


1 SUPPORTING INFORMATION

2



4 Figure S1. Map of receivers in Jervis Bay, NSW used to detect wild shark movement
5 frequency and presence.

6

7

8

9

10

11

12

13

14

15 **LME model selection**

16 Table S1. Ten best fit models based on AICc score. TD: time of day, S: sex, TY: time of year, *:
 17 interaction.

18 + The model with the lowest AICc score (activity ~ time of day + time of year + sex + (time of
 19 year*sex)) compared to the second scoring model (activity ~ time of day + time of year) had
 20 a difference in AICc score of 5.84. This resulted in a 0.0015 probability that the second-
 21 highest model minimized information loss.

| Model rank | Intercept | TD | S | TY | S * TY | TD * S | TD * TY | logLik | AICc |
|------------|-----------|----|---|----|--------|--------|---------|---------|--------|
| 1 | -1.31 | + | + | + | + | | | -137.28 | 293.90 |
| 2+ | -1.60 | + | | + | | | | -142.46 | 299.75 |
| 3 | -1.60 | + | | + | | | + | -143.18 | 303.42 |
| 4 | -1.56 | + | + | + | | | | -143.65 | 304.36 |
| 5 | -1.56 | + | + | + | | | + | -144.36 | 308.06 |
| 6 | -1.55 | + | + | + | | + | | -144.37 | 308.07 |
| 7 | -0.79 | | + | + | + | | | -148.89 | 314.84 |
| 8 | -1.08 | | | + | | | | -153.85 | 320.31 |
| 9 | -1.32 | + | | | | | | -153.86 | 320.34 |
| 10 | -1.21 | + | + | | | | | -152.93 | 320.68 |

22

23

24

25

26

27 **Post hoc pairwise analysis**

28 Table S2. Post hoc pairwise comparison: Sex * Time of year (interaction). M: male, F: female,
29 EB: early breeding season, LB: late breeding season.

30
31
32
33
34
35
36
37
38

| Contrasts | Estimate | SE | t value | P value |
|-----------------|----------|-------|---------|---------|
| F / EB – M / EB | 0.434 | 0.136 | 3.185 | 0.0099 |
| F / EB – F / LB | -0.118 | 0.136 | -0.868 | 0.8215 |
| F / EB – M / LB | -0.429 | 0.157 | -2.728 | 0.0365 |
| M / EB – F / LB | -0.552 | 0.111 | -4.954 | < .0001 |
| M / EB – M / LB | -0.863 | 0.136 | -6.329 | < .0001 |
| F / LB – M / LB | -0.311 | 0.136 | -2.284 | 0.1077 |