

Supporting Information. Labourgade, P., L. Ballesta, C. Huveneers, Y. Papastamatiou, and J. Mourier. 2020. Heterospecific foraging associations between reef-associated sharks: first evidence of kleptoparasitism in sharks. *Ecology*.

Appendix S1

During our expedition in 2017, 38 grey reef sharks were equipped with Vemco V13AP acoustic tags measuring mean acceleration ($\text{m}\cdot\text{s}^{-2}$) and depth (m). Acceleration ($\pm 4.9 \text{ m}\cdot\text{s}^{-2}$ range) was sampled at 5 Hz for 20 seconds four times every five transmission cycles. Activity was calculated as an average root mean square (RMS) value for all three axes ($\text{activity} = [X^2 + Y^2 + Z^2]^{0.5}$) and transmitted as an 8-bit digital value. The static contribution to the overall acceleration (g) was filtered out prior to RMS calculation. RMS acceleration resolution was $0.0191 \text{ m}\cdot\text{s}^{-2}$. Our expedition was conducted between 18/06/2017 and 14/07/2017 during which light was used daily during night dives. We allowed a buffer period of two weeks which was deleted from the data to remove lag effect of night dives after we left the study site. The “after” period corresponds to a month between 01/08/2017 and 31/08/2017. Mean activity during our expedition ($\text{mean} \pm \text{SD} = 0.650 \pm 0.447 \text{ m}\cdot\text{s}^{-2}$) was not significantly different from mean activity after the expedition ($\text{mean} \pm \text{SD} = 0.649 \pm 0.411 \text{ m}\cdot\text{s}^{-2}$) as demonstrated by the outputs of the GLMM: $\text{Activity} \sim \text{Period} + (1|\text{SharkID})$, where Activity is the mean body acceleration in $\text{m}\cdot\text{s}^{-2}$, Period corresponds to phases during or after the expedition and SharkID is the identity of the tagged sharks and was input as a random factor ($F = 5.132, p < 0.05$).

Figure S1: Difference in activity (body acceleration) of 38 grey reef sharks between two periods: “during” and “after” the expedition. Boxplots and density distributions of values are presented.

