

## Supplementary Material

## Dynamics of intersexual dominance in a highly dimorphic primate

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**Table S1**: Details of the full dataset. The second and the third column show the number of intra- and inter- sexual interactions used per season to calculate the intersexual hierarchy. The fourth column shows the number of individuals in the intersexual hierarchy each year. The fifth, sixth and seventh column show the percentage of intersexual, male-male and female-female dyads that were never recorded to interact agonistically.

Year.season	çç&♂♂_interactions	ৃ♂interactions	Individuals	No_interacting_♀♂dyads	No_interacting_ordyads	No_interacting_Qdyads
2013 Birth	742	423	36	35.7 %	25.0 %	51.6 %
2013 Mating	1290	793	37	47.6 %	23.8 %	52.7 %
2014 Birth	425	236	40	46.4 %	10.9 %	63.9 %
2014 Mating	1127	635	44	36.3 %	0.0~%	69.9 %
2015 Birth	1277	817	51	68.4 %	30.9 %	63.0 %
2015 Mating	882	348	47	66.7 %	40.0 %	60.9 %
2016 Birth	564	461	51	65.9 %	37.8 %	74.6 %
2016 Mating	783	504	54	61.3 %	33.3 %	74.5 %
2017 Birth	691	373	59	64.5 %	43.6 %	75.0 %
2017 Mating	479	316	49	69.2 %	51.1 %	76.1 %
2018 Birth	637	275	73	66.1 %	21.2 %	73.6 %
2018 Mating	1088	404	65	78.7 %	57.8 %	79.6 %
2019 Birth	325	65	69	66.0 %	8.3 %	75.7 %
2019 Mating	688	303	71	82.4 %	33.3 %	85.9 %
2021 Mating	644	151	83	81.1 %	60.7 %	81.0 %

## **Robustness testing**

In order to check the robustness of our results, we conducted two different randomization procedures. First, we calculated the hierarchy using David's scores 500 times; in each iteration, we randomly selected only 50% of the recorded interactions in our dataset, and calculated the hierarchy based on that sub-sample. In each iteration, we calculated the percentage of males outranked by an average female. Figure S1A shows the distribution of these percentages, which have an average value of  $12.1\pm0.8\%$  (mean±SD). Second, we calculated the hierarchy 500 times using I&SI, which includes a randomization procedure as part of its methodology. Despite the randomization process in the algorithm of this metric, none of the 500 iterations resulted in an intersexual hierarchy where all females are outranked by all males. Figure S1B shows the distribution of the percentages of males outranked by an average female ( $16.1\pm1.5\%$ ; mean±SD).



**Figure S1.** Robustness testing - Histograms illustrating the distribution of the percentage of males outranked by an average female when the intersexual hierarchy was calculated 500 times with (A) David's score by randomly selecting only 50% of agonistic interactions in our dataset or (B) I&SI using all interactions (full dataset).