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The cost of male aggression and polygyny in California sea lions *(Zalophus californianus)*

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In polygynous mating systems, males often increase their fecundity via aggressive defense of mates and/or resources necessary for successful mating. Here we show that both male and female reproductive behavior during the breeding season (June–August) affect female fecundity, a vital rate that is an important determinant of population growth rate and viability. By using 4 years of data on behavior and demography of California sea lions (Zalophus californianus), we found that male behavior and spatial dynamics—aggression and territory size—are significantly related to female fecundity. Higher rates of male aggression and larger territory sizes were associated with lower estimates of female fecundity within the same year. Female aggression was significantly and positively related to fecundity both within the same year as the behavior was measured and in the following year. These results indicate that while male aggression and defense of territories may increase male fecundity, such interactions may cause a reduction in the overall population growth rate by lowering female fecundity. Females may attempt to offset male-related reductions in female fecundity by increasing their own aggression—perhaps to defend pups from incidental injury or mortality. Thus in polygynous mating systems, male aggression may increase male fitness at the cost of female fitness and overall population viability.

Palabras clave: agresión, medusae, poliginia, lobo marino de California.