

## 2020 SMALL GRANTS IN AID OF RESEARCH

### FINAL SUMMARY REPORT

#### **What is limiting the recovery of Guadalupe fur seals at San Benito Archipelago, Pacific Ocean, Mexico?**

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The Guadalupe fur seals have been slow to recover following an intense period of sealing. The fur seals breed on Guadalupe Island and recolonized the San Benito Archipelago (SBA; West, Middle, and East Islands) during the 1990s. Although the SBA colony is large, it is considered nonreproductive because so few pups were born there. Our study aimed to determine what is limiting reproduction on SBA, which we visited from July 7 to 30, 2022. We performed a population count from land and boat around the three islands. We also registered the location of each fur seal aggregation using GPS. We made behavioral observations on the largest aggregation of fur seals at the West Island from 8:00 a.m. to 5:00 p.m. We recorded behaviors using *ad libitum*, scan, and behavioral sampling methods. The total population was 5,600, and the number of pups was 59. Juveniles and subadult males were the most abundant age-class (97%). We are still analyzing the data. However, with the information we have explored so far, we conclude that SBA is integrated by two haul-outs (Center and East Islands) and a mixed colony (West Island), that is, haul-outs with some reproductive territories. We observed agonistic interactions between males, nursing events, and copulations. Surprisingly, when territorial males left their territories, juveniles and subadults harassed females and abducted pups for up to 24 h. Harassment may be one factor limiting the formation of a well-established reproductive colony.

Thesis and publications: The data obtained in this study will be used in a master's thesis (by Guillermo Vallarino-Orozco) and a bachelor's thesis (by Raúl Peralta). In addition, we will produce two scientific publications.

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