**Supplementary Material**

Recent recovery and expansion of Guam’s locally endangered Såli (Micronesian Starling) *Aplonis opaca* population in the presence of the invasive brown tree snake

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Table S1. Summary of all opportunistic Såli sightings included in the study from eBird ™ (*n* = 25; eBird 2019) and the Guam Division of Aquatic and Wildlife Resources (DAWR; *n* = 39) databases. Each entry includes the year(s) of the sighting, the observer, a descriptor of the location of the sighting, the number of Såli observed during the sighting, and the geographic coordinates (longitude and latitude, in UTM) of each sighting. *Attached as Supplementary Table S1.xlsx”*.

Table S2. Counts of Såli from interior (*n* = 12) and peripheral (*n* = 16) search areas during weeks 1-3 of the population census on Andersen Air Force Base, Guam, U.S.A., including mean, standard error (SE), and p-values from Student’s t-tests comparing interior and peripheral search areas (boldface indicates significant differences; α = 0.05).

|  |  |  |  |
| --- | --- | --- | --- |
| Week | Interior (mean ± SE) | Peripheral (mean ± SE) | p-value |
| 1 | 31.8 ± 5.0 | 14.3 ± 4.1 | **0.01** |
| 2 | 26.3 ± 4.3 | 15.8 ± 3.8 | **0.04** |
| 3 | 41.3 ± 7.5 | 21.3 ± 6.2 | 0.10 |

Figure S1. Exemplar plumages of the four different age classes. Individuals were categorized as ‘fledgling’ if they had dark streaky plumage on the breast, a visible yellow gape, dark eye and/or was being attended to by its parents, ‘juvenile’ if they had light streaky plumage on the breast, a fading gape, eye color was amber or lighter, and had dispersed from the natal territory (i.e. independent from its parents), ‘subadult’ if they exhibited a partial basic molt (Såli undergo a suspended molt where they begin to replace preformative plumage with basic plumage but often retain preformative plumage in certain feather tracts (i.e. breast feathers) for extended periods of time; Radley et al. 2011, H.S. Pollock, personal observations), and ‘adult’ if they were in basic plumage (‘definitive cycle basic’ – DCB *sensu* Johnson et al. 2009). Photos by Martin Kastner © 2019.

References:

Radley, P., Crary, A. L., Bradley, J., Carter, C., and Pyle, P. (2011) Molt patterns, biometrics, and age and gender classification of landbirds on Saipan, Northern Mariana Islands. *The Wilson Journal of Ornithology* 123: 588–594.

Wolfe, J. D., Chandler, R. B., and King, D. I. (2009) Molt patterns, age, and sex criteria for selected highland Costa Rican resident landbirds. *Ornitologia Neotropical* 20: 451–459.

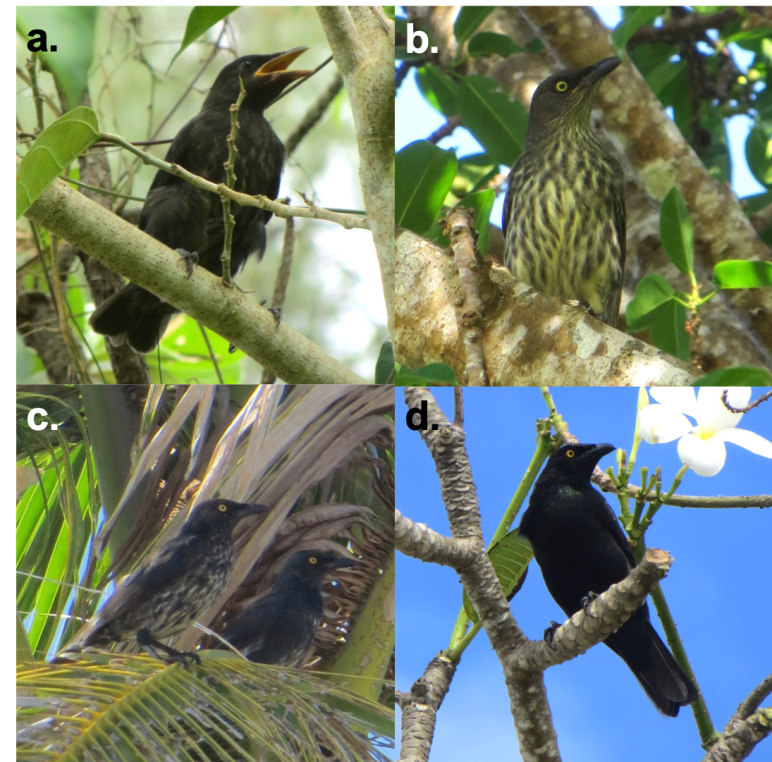


Figure S2. Estimates of extrapolated richness (i.e. number of colour-banded individuals in the AAFB Såli population) generated using the *specpool* function in the R package ‘vegan’ (Oksanen et al. 2013). S represents the actual number of unique color-banded birds seen during all surveys (*n* = 42), and the other four panels (Chao, Jackknife1, Jackknife2, Bootstrap) represent the various extrapolated estimators. Blue line represents the mean estimate and the pink lines represent the 95% confidence intervals for each estimator.

Reference: Oksanen, J., Blanchet, F. G., Kindt, R., Legendre, P., Minchin, P. R., O’Hara, R. B., Simpson, G. L., Solymos, P., Stevens, M. H. H, Wagner, H. and Oksanen, M. J. (2013) Package ‘vegan’. Community Ecology Package, version 2.

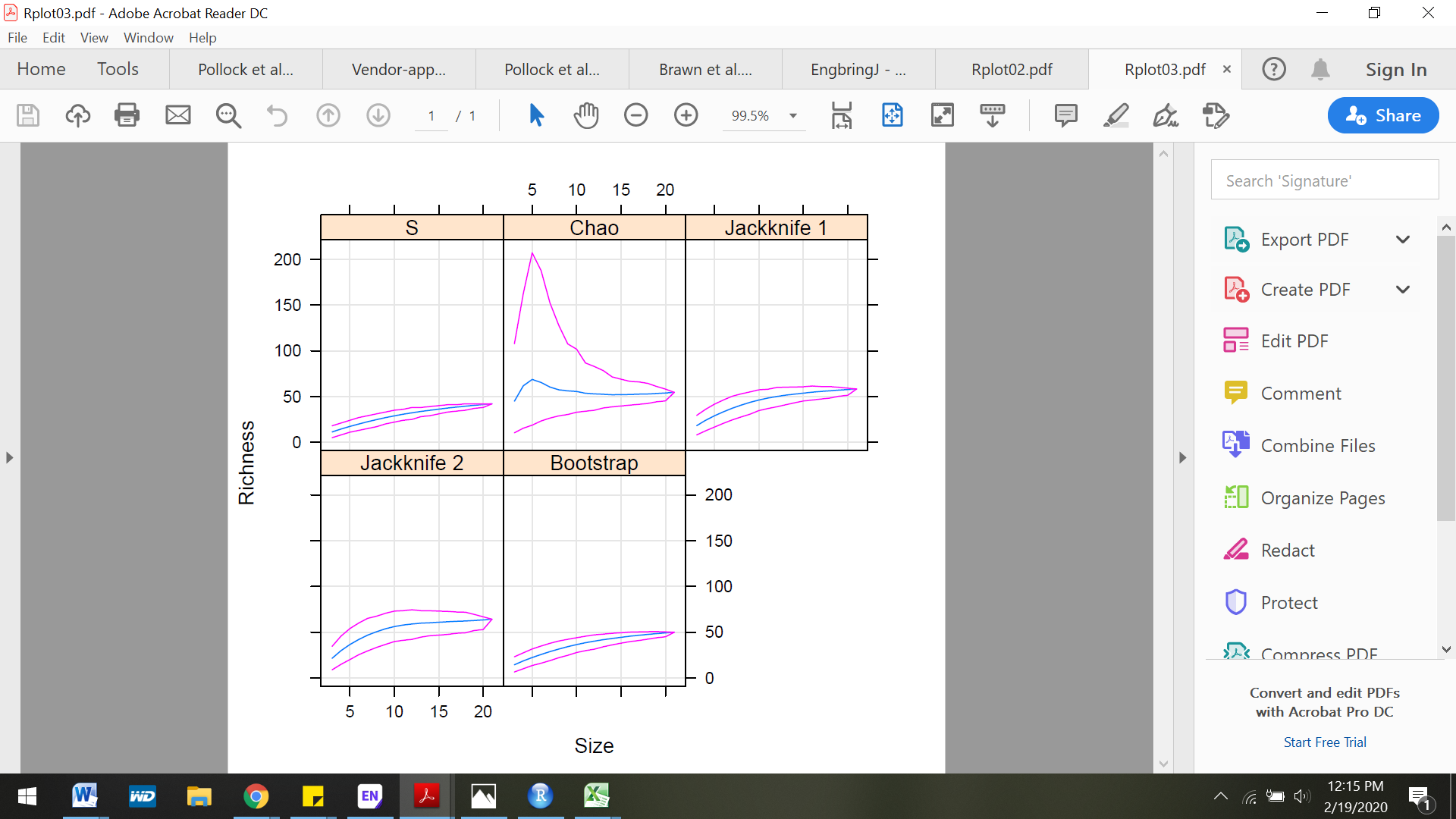


Figure S3. Såli pair nesting in a concrete power pole in Yigo, Guam, U.S.A, in 2018. Photo by Laura Barnhart Dueñas © 2019.

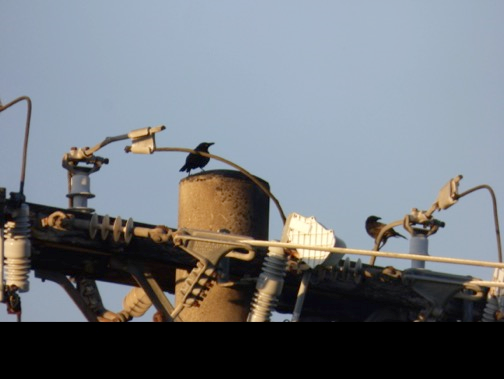


Figure S4. Raw counts of Såli for each of the 28 on-base search areas and four off-base search areas surveyed on Andersen Air Force Base, Guam, USA, during weeks 1, 2, and 3, respectively, in 2018. *Attached as “Supplementary Fig. S4.pdf”.*

SUPPLEMENTARY FIGURE S5. Accumulation curve of unique colour-banded individuals registered during area searches at Andersen Air Force Base, Guam, U.S.A. in September-October 2018 (21 total sampling days, 42 unique resights of colour-banded individuals).

