The difference in mass between subspecies of common chaffinch.

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Introduction

A number of subspecies of the common chaffinch, *Fringilla coelebs*, have been described based principally on the differences in the pattern and colour of the adult male plumage (Suárez et al. 2009). Two of groups of these subspecies are the "coelebs group" (Figure 1a) that occurs in Europe and Asia and the "canariensis group" (Figure 1b) that occurs on the Canary Islands.



(a) F. c. coelebs (b) F. c. palmae

Figure 1: Adult male *Fringilla coelebs*. Coelebs group on the left (Andreas Trepte, CC BY-SA 2.5 https://creativecommons.org/licenses/by-sa/2.5, via Wikimedia Commons) and canariensis group on the right (H. Zell, CC BY-SA 3.0 https://creativecommons.org/licenses/by-sa/3.0, via Wikimedia Commons).

Methods

We randomly sampled 20 F. c. coelebs males and 20 F. c. palmae males and determined their mass with spring scales. Analysis was carried out with R (R Core Team 2025) and tidyverse packages (Wickham et al. 2019) and the manuscript was prepared with Quarto (Allaire et al. 2024).

Results

Canariensis have higher mass than coelebs. See Figure 2.

The distribution mass can be can been seen in Figure 3 for Canariensis in Figure 3a and for Coelebs in Figure 3b. We don't really need more figures for this data but it allows you to see how to create multipanel figures.

A summary of the results are gratuitously reproduced in Table 1 just to include a table.

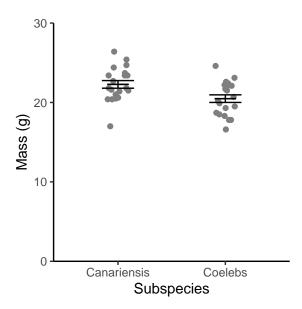


Figure 2: Canariensis chaffinches are heavier than Coelebs chaffinches. The mean mass of 20 randomly sampled males from each subspecies was determined. Error bars means are \pm 1 standard error. Data analysis was conducted in R (R Core Team 2025) with tidyverse (Wickham et al. 2019) packages .

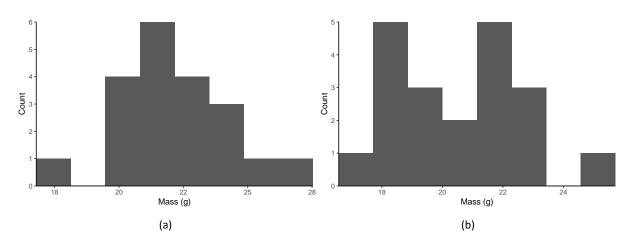


Figure 3: **Distribution of mass for two subspecies of chaffinch.** Figure 3a, F. c. canariensis and, Figure 3b, F. c. coelebs. The mean mass of 20 randomly sampled males from each subspecies was determined.

Table 1: Summary of mass(g) for the two subspecies of chaffinch.

Subspecies	Mean	Sd	Ν	Se
canariensis	22	2.1	20	0.48
coelebs	20	2.1	20	0.48

Discussion

yadda yadda

References

Allaire, J. J., Charles Teague, Carlos Scheidegger, Yihui Xie, Christophe Dervieux, and Gordon Woodhull. 2024. "Quarto." https://doi.org/10.5281/zenodo.5960048.

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Suárez, Nicolás M., Eva Betancor, Tilman E. Klassert, Teresa Almeida, Mariano Hernández, and José J. Pestano. 2009. "Phylogeography and Genetic Structure of the Canarian Common Chaffinch (Fringilla Coelebs) Inferred with mtDNA and Microsatellite Loci." *Molecular Phylogenetics and Evolution* 53 (2): 556–64. https://doi.org/10.1016/j.ympev.2009.07.018.

Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Grolemund, et al. 2019. "Welcome to the {Tidyverse}" 4: 1686. https://doi.org/10.21105/joss.01686.