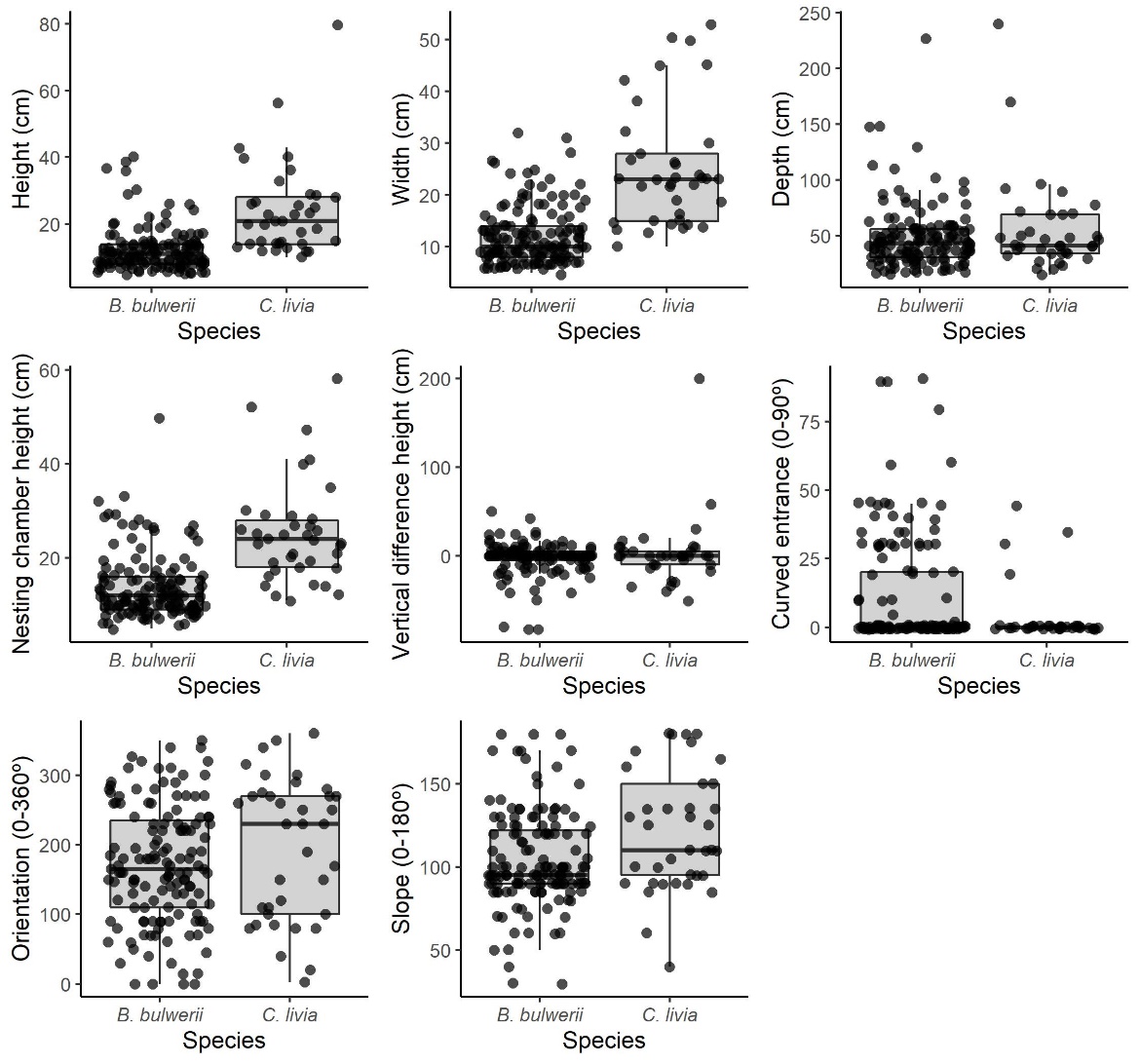
# Supplementary Material

# Figure S1

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**Figure S1**. Location of the studied sites for nesting density and breeding success (red) of Bulwer’s petrel *Bulweria bulwerii* on Tenerife, Canary Islands, during 2017-2020 breeding seasons (see Table S1 for further details).

# Figure S2



**Figure S2.** Comparison of eight variables describing nest features of Bulwer’s petrel*Bulweria bulwerii* and feral pigeon *Columba livia* on Tenerife, Canary Islands. Data have been jittered for a better visualization.

# Figure S3

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**Figure S3.** Photographs of Roque Grande (El Burgado, Los Realejos) taken in 2007 (top) and 2021 (bottom). Note the vegetation change. The number of *Euphorbia canariensis* have passed from nine large individuals in 2007 (top) to only one small individual in 2019 (bottom). Photo credit: José Miguel Martín Fariña (top) and Beneharo Rodríguez (bottom).

# Table S1

**Table S1**. List of sites sampled for Bulwer’s petrel *Bulweria bulwerii* colonies on Tenerife, Canary Islands. Site id referred to figure S1. We provide habitat type (Island= main island; Rock = marine rock or stack), nest density of Bulwer’s petrel (number of nests/ha), abundance of Cory’s shearwaters *Calonectris borealis* (number of nests) and presence (1) or absence (0) of rock pigeons *Columba livia*, cats *Felis catus* or rats *Rattus* spp. 1 Estimated using thermic monocular. S = South, E = East. Colonies where breeding success was studied are highlighted in red.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Id | Study site | Habitat | Nest Density | *Calonectris*  *borealis* | *Columba*  *livia* | *Felis*  *catus* | *Rattus* spp. |
| 1 | Acantilado de Guaza1 | Island | 0.000 | 0 | 0 | 1 | 1 |
| 2 | Acantilado de Guaza2 | Island | 0.000 | 0 | 0 | 1 | 1 |
| 3 | Acantilado de Guaza3 | Island | 0.000 | 0 | 0 | 1 | 1 |
| 4 | Roque Callao Salvaje | Rock | 0.000 | 0 | 0 | 0 | 0 |
| 5 | Bahía Juan Lorenzo | Island | 0.000 | 0 | 0 | 1 | 1 |
| 6 | Acantilado de Isorana | Island | 0.000 | 0 | 0 | 1 | 1 |
| 7 | Punta de Sotavento | Island | 0.000 | 18 | 1 | 1 | 1 |
| 8 | Los Tiniques | Island | 0.000 | 76 | 1 | 1 | 1 |
| 9 | Roque La Hondura | Rock | 0.000 | 0 | 1 | 1 | 0 |
| 10 | Inmed. Galería Jurado | Island | 0.175 | 0 | 1 | 1 | 1 |
| 11 | Punta del Gigante | Island | 0.994 | 9 | 1 | 1 | 1 |
| 12 | Playa del Gigante | Island | 5.057 | 2 | 0 | 0 | 1 |
| 13 | La Jaqueta | Island | 1.988 | 2 | 1 | 0 | 1 |
| 14 | Los Pedrones | Island | 11.442 | 13 | 0 | 0 | 1 |
| 15 | Punta La Higuera | Island | 0.000 | 1 | 0 | 1 | 1 |
| 16 | Morro La Galera | Island | 0.395 | 0 | 0 | 0 | 1 |
| 17 | Juan López | Island | 0.126 | 0 | 0 | 1 | 1 |
| 18 | La Hábiga | Island | 0.000 | 0 | 0 | 0 | 1 |
| 19 | Teno Bajo | Island | 0.277 | 0 | 0 | 1 | 1 |
| 20 | La Tosquita | Island | 2.611 | 0 | 0 | 1 | 1 |
| 21 | La Puntilla | Rock | 0.000 | 0 | 1 | 0 | 0 |
| 22 | Roque Garachico | Rock | 3.965 | 32 | 1 | 0 | 0 |
| 23 | Roque Los Lagartos 1 | Rock | 0.000 | 0 | 1 | 0 | 0 |
| 24 | Roque del Garajao 1 | Rock | 6.568 | 0 | 0 | 0 | 0 |
| 25 | Roque La Coronela | Rock | 62.385 | 1 | 0 | 0 | 0 |
| 26 | Tasana | Island | 0.000 | 10 | 1 | 1 | 1 |
| 27 | Acantilados de La Guancha | Island | 0.090 | 31 | 0 | 1 | 1 |
| 28 | Roque Chico S. J. Rambla | Rock | 17.725 | 0 | 1 | 0 | 0 |
| 29 | Roque Grande S. J. Rambla | Rock | 13.961 | 0 | 1 | 0 | 0 |
| 30 | Roque Chico Burgado 1 | Rock | 0.000 | 0 | 1 | 0 | 0 |
| 31 | Roque Grande Burgado 1 | Rock | 0.000 | 0 | 1 | 0 | 0 |
| 32 | La Rapadura | Rock | 0.000 | 8 | 0 | 1 | 1 |
| 33 | Roque La Playa | Rock | 4.313 | 0 | 1 | 0 | 0 |
| 34 | Roque El Clavo | Rock | 8.256 | 0 | 1 | 0 | 0 |
| 35 | El Clavo-Risco Firme | Island | 2.110 | 0 | 0 | 1 | 1 |
| 36 | La Barranquera | Island | 0.147 | 0 | 0 | 1 | 1 |
| 37 | Roque La Fajana | Rock | 0.000 | 0 | 0 | 0 | 0 |
| 38 | Punta Salvaje | Island | 0.000 | 88 | 0 | 1 | 1 |
| 39 | Roque de Tierra Anaga (S) | Rock | 10.035 | 41 | 0 | 0 | 0 |
| 40 | Roque de Tierra Anaga (E) | Rock | 2.250 | 2 | 1 | 0 | 0 |
| 41 | Roque de Fuera Anaga | Rock | 3.335 | 213 | 0 | 0 | 0 |
| 42 | Punta El Jurado-Palmital | Island | 0.000 | 4 | 0 | 1 | 1 |
| 43 | Punta Salinas Anaga | Island | 0.000 | 33 | 0 | 1 | 1 |

# Table S2

**Table S2**. Breeding success of Bulwer’s petrel *Bulweria bulwerii* in the studied colonies on Tenerife, Canary Islands, during three breeding seasons.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Id | Study site | Density of | | Breeding success % (*n*) | | | |
| Rats | Pigeons | 2018 | 2019 | 2020 | Total |
| 14 | Los Pedrones | High | Absence | 53.8 (13) | 0 (7) | 0 (8) | 25.0 (28) |
| 22 | Roque de Garachico | Absence | Low | 60.0 (25) | 61.5 (26) | 34.8 (23) | 52.7 (74) |
| 25 | Roque La Coronela | Absence | Absence | 53.8 (13) | 52.9 (17) | 64.3 (14) | 56.8 (44) |
| 28 | R. Chico S. J. Rambla | Absence | High | 71.4 (7) | 60.0 (5) | 100.0 (5) | 76.5 (17) |
| 29 | R. Grande S. J. Rambla | Absence | High | 76.9 (13) | 60.0 (15) | 55.6 (18) | 63.0 (46) |
|  | Total |  |  | 62.0 (71) | 52.9 (70) | 47.1 (68) | 54.1 (209) |

# Table S3

**Table S3**. Physic characteristics of nest cavities used by Bulwer’s petrel *Bulweria bulwerii* and feral pigeon *Columba livia* on Tenerife, Canary Islands.

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Bulwer’s petrel  (*n* = 139) | Feral pigeon  (*n* = 37) | Permutation test  p-value 99% CI |
| Nest type (%) |  |  |  |
| Rock crevice | 52.5 | 94.6 |  |
| Soil crevice | 6.4 | 0 |  |
| Burrow | 41.1 | 5.4 |  |
| Height | 12.36 ± 6.57 | 24.08 ± 14.06 | < 0.001 |
| Width | 12.22 ± 5.62 | 25.22 ± 11.66 | < 0.001 |
| Depth | 48.50 ± 28.80 | 55.08 ± 42.46 | 0.670 - 0.694 |
| Nesting chamber height | 13.78 ± 6.91 | 25.22 ± 10.85 | < 0.001 |
| Vertical difference height | -2.78 ± 18.14 | 2.54 ± 38.86 | 0.920 - 0.933 |
| Curved entrance | 11.85 ± 20.54 | 3.51 ± 10.66 | 0.005 - 0.009 |
| Slope | 104.5 ± 29.0 | 121.4 ± 36.0 | 0.005 - 0.010 |
| Nest material (%) |  |  |  |
| Yes | 42.1 | 100 |  |
| No | 57.9 | 0 |  |