**Appendix S5.** Model outputs for models with increased regularisation multiplier value (2).

**Table S5-1.** Percentage contribution of variables to final models. VR, visual reduced model; VC, visual combined model; AR, acoustic reduced model; AC, acoustic combined model. Variables removed from final models indicated by dashes. Positive correlations shown in bold, negative correlations shown in italics.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variables** | **VR** | **VC** | **AR** | **AC** |
| Bioclimatic: |  |  |  |  |
| *Mean diurnal range (BIO2)* | — | — | **25.1** | — |
| *Isothermality (BIO3)* | — | — | — | — |
| *Min temperature of coldest month (BIO6)* | — | **10.7** | *10.9* | *8.1* |
| *Mean temperature of wettest quarter (BIO8)* | — | — | — | — |
| *Annual precipitation (BIO12)* | **24.7** | — | — | — |
| *Precipitation of driest month (BIO14)* | *8.8* | — | — | — |
| *Precipitation of driest quarter (BIO17)* | **18** | **7.7** | *22.3* | *10.6* |
| Elevation | — | *19.7* | — | — |
| Slope | **25.6** | **16.7** | **8.8** | **19.3** |
| Soil hardness | *22.9* | — | **33** | — |
| Land cover: |  |  |  |  |
| *Forest* |  | **39.5** |  | **28.6** |
| *Thicket* |  | — |  | — |
| *Surface soil* |  | — |  | *16.1* |
| *Cropland* |  | *5*.7 |  | *17.3* |

**Table S5-2.** Threshold values for final models. VR, visual reduced model; VC, visual combined model; AR, acoustic reduced model; AC, acoustic combined model. Increases in threshold values compared to original models shown in *italics*,decreases shown in **bold**.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **VR** | **VC** | **AR** | **AC** |
| ***Threshold value:*** | | | | |
| Lowest training presence | *0.227* | **0.108** | *0.342* | *0.245* |
| 10th percentile presence | *0.257* | **0.185** | *0.342* | *0.411* |