

**Supplementary material**

## Supplementary material: Appendix 1

Koleček J. et al. Cross-continental migratory connectivity and spatiotemporal migratory patterns in the great reed warbler. – Journal of Avian Biology 000: 000–000.

Table A1. Capture year and number of captured and recaptured (with data for this paper / all recaptured) males and females, and technical details of geolocators (type, mass [g] and light stalk length) used to track great reed warblers from five Palearctic populations. In stalk length, we distinguish between light sensor elevated by means of a stalk (stalk) and sensor attached directly to the circuit board with a light guide extending upward (guide), respectively.

| Population                               | Capture year     | Captured           | Recaptured            | Type           | Mass (g) | Stalk length |
|--|------------------|--------------------|-----------------------|----------------|----------|--------------|
| Spain – San Galindo, Madrid              | 2011             | 7 M, 2 F           | 1/1 M                 | MK20ASLT       | 1.10     | 10mm stalk   |
| Spain – Pego-Oliva                       | 2011             | 9 M, 2 F           | 1/1 M                 | MK20ASLT       | 1.10     | 10mm stalk   |
| Spain – Vitoria                          | 2011             | 8 M, 2 F           | 0/0                   | MK20ASLT       | 1.10     | 10mm stalk   |
| Spain – Badajoz                          | 2012             | 8 M, 2 F           | 1/1 F                 | MK57A0C        | 1.00     | 10mm stalk   |
| Sweden                                   | 2011             | 16 M               | 3/4 M                 | Mk12-SAD, Mk20 | 1.00     | 8mm stalk    |
| Sweden                                   | 2012             | 23 M               | 6/8 M                 | Mk12-SAD, Mk20 | 1.00     | 8mm stalk    |
| Czech Rep.                               | 2012             | 16 M, 16 F         | 4/8 M, 4/4 F          | SOI-GDL1       | 1.22     | 7mm guide    |
| Bulgaria                                 | 2012             | 22 M, 10 F         | 3/4 M, 1/1 F          | SOI-GDL1       | 1.23     | 7mm guide    |
| Turkey – Bafra                           | 2013             | 12 M               | 4/4 M                 | Mk12-SAD, Mk20 | 1.00     | 8mm stalk    |
| Turkey – Cernek Gölü, Kızılırmak Deltası | 2013             | 2 M                | 0/0                   | Mk12-SAD, Mk20 | 1.00     | 8mm stalk    |
| <b>Total</b>                             | <b>2011–2013</b> | <b>123 M, 34 F</b> | <b>22/30 M, 6/6 F</b> |                |          |              |

Table A2. Temporal patterns in migration for the 28 adult great reed warblers with geolocators from five Palearctic populations. Median values (min.-max.) are given for individual migration events. One bird tagged in Bulgaria had a geocator with a broken light guide. See Supplementary material Appendix 1, Table A1 for number of tracked birds in individual populations. Total speed of post-/pre-breeding migration includes time at stop-over sites.

| Migration event                            | Spain               | Sweden              | Czech Republic      | Bulgaria            | Turkey              |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| Departure from breeding sites              | 28/07 (17/07–08/08) | 03/08 (19/07–19/08) | 04/08 (23/07–11/08) | 22/08 (29/07–25/08) | 23/08 (15/08–02/09) |
| No. of post-breeding stopovers             | 1 (1–2)             | 2 (1–3)             | 1 (1–2)             | 0 (0–2)             | 0 (0–1)             |
| Duration of post-breeding migration (days) | 35 (28–80)          | 39 (27–126)         | 34.5 (24–47)        | 13 (9–26)           | 10 (5–44)           |
| Speed of post-breeding migration (km/day)  | 88 (40–110)         | 139 (47–221)        | 144 (94–196)        | 300 (133–362)       | 419 (82–678)        |
| Arrival at first non-breeding site         | 05/09 (01/09–05/10) | 14/09 (09/09–22/11) | 04/09 (20/08–15/09) | 03/09 (24/08–06/09) | 03/09 (29/08–06/10) |
| Departure from first non-breeding site     | 10/12 (17/11–19/01) | 20/12 (28/11–22/04) | 12/12 (20/10–15/04) | 06/12 (13/11–30/12) | 10/12 (02/12–07/01) |
| Arrival at final non-breeding site         | 10/12 (28/11–19/01) | 01/12 (08/09–22/03) | 28/11 (20/08–22/12) | 07/12 (13/11–31/12) | 25/12 (09/12–23/02) |
| Departure from non-breeding site(s)        | 14/04 (24/03–21/04) | 16/04 (06–22/04)    | 13/04 (02–29/04)    | 05/04 (30/03–12/04) | 07/04 (31/03–19/04) |
| No. of non-breeding sites                  | 2 (2)               | 2 (1–3)             | 2 (1–2)             | 2 (2)               | 2 (2–3)             |
| No. of days spent at non-breeding grounds  | 199 (201–225)       | 209 (146–222)       | 222 (208–237)       | 216 (208–223)       | 220.5 (176–225)     |
| No. of pre-breeding stopovers              | 1 (1–3)             | 1 (1–3)             | 1 (0–2)             | 1 (1–2)             | 1.5 (1–3)           |
| Duration of pre-breeding migration (days)  | 28.5 (20–37)        | 22 (16–38)          | 19 (13–25)          | 28.5 (24–33)        | 26 (12–35)          |
| Speed of pre-breeding migration (km/day)   | 141 (95–187)        | 262 (157–373)       | 268 (194–391)       | 163 (126–199)       | 216 (155–402)       |
| Arrival at breeding site                   | 05/05 (30/04–11/05) | 14/05 (06–20/05)    | 07/05 (15/04–16/05) | 06/05 (NA–06/05)    | 07/05 (01–09/05)    |