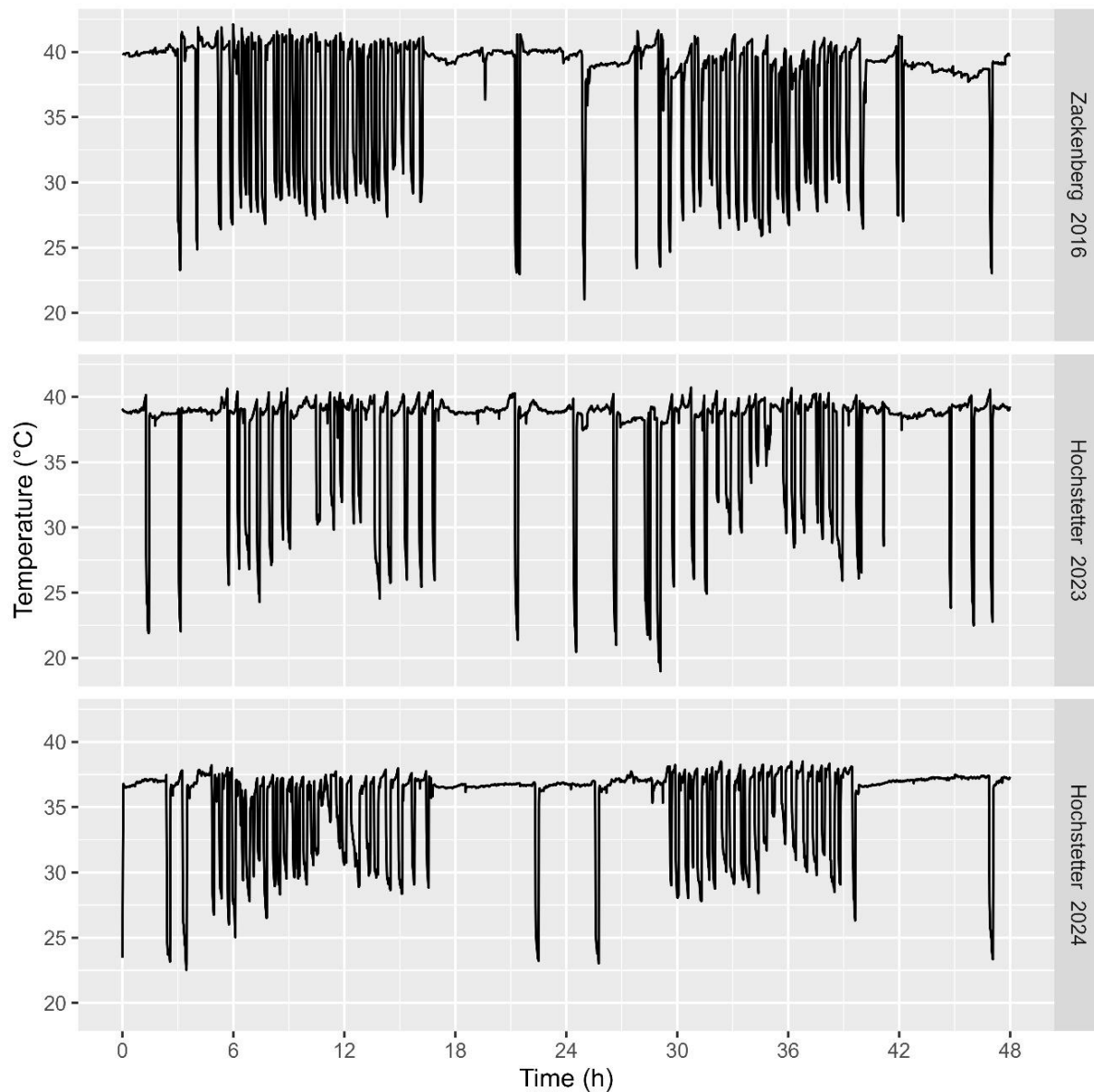


Supplementary material for: Pagnon T., Hansen J., Buchel E., Sabard B., Lang J., Sittler B., Boertmann D., Schmidt N.M., Bollache L. & Gilg O. 2025. First breeding events of the pectoral sandpiper (*Calidris melanotos*) in north-east Greenland: a harbinger of breeding range expansion? *Polar Research* 44. Thomas Pagnon, Marie and Louis Pasteur University, National Center for Scientific Research, Chrono-environment, 16 route de Gray, 25000 Besançon, France. E-mail: thomas.pagnon@gmail.com



Supplementary Fig. S1 Uniparental incubation patterns recorded for the three pectoral sandpiper (*Calidris melanotos*) nests found in north-east Greenland. Here we only show extracts over similar periods of 48 hours (all starting at midnight). Temperatures between 37 and 42°C indicate incubation periods (red) and sudden drops in temperature indicate recesses.

Supplementary Table S2. Egg measurements from the three pectoral sandpipers nests found in Greenland at Zackenberg in 2016 and at Hochstetter Forland in 2023 and 2024, with their average compared to the averages measured in Alaska.

	Length (mm)	Breadth (mm)	Volume (cm ³)
Zackenberg, Greenland			
2016			
#1	35.6	26.3	11.63
#2	36.0	26.1	11.58
#3	35.6	26.6	11.90
#4	35.3	26.1	11.36
Hochstetter Forland, Greenland			
2023			
#1	38.4	25.3	11.61
#2	37.4	25.1	11.13
#3	36.7	25.2	11.01
#4	36.4	25.3	11.01
2024			
#1	38.6	24.8	11.22
#2	35.9	25.0	10.60
#3	38.3	25.6	11.86
#4	38.6	25.6	11.95
Greenland	36.9 ± 1.3	25.6 ± 0.6	11.4 ± 0.42
Barrow, Alaska (<i>n</i> = 8) ^a	37.1 ± 1.6	26.5 ± 0.7	12.34 ± 1.02
Prudhoe Bay, Alaska (<i>n</i> = 222) ^b	37.4 ± 1.6	26.4 ± 0.6	—

^a Governali et al. (2012). ^b Farmer et al. (2013).

Supplementary Table S3. Morphometric measurements and weight of the females pectoral sandpiper ringed in Greenland, at Zackenberg in 2016 (ring no. 8260501) and at Hochstetter Forland in 2023 (ring no. 8882713) and 2024 (ring no. 8884902), compared with mean tarsus lengths and body weights available from Alaska.

	Ring no.	Wing (mm)	Bill (mm)	Head (mm)	Tarsus (mm)	Tarsus plus toe (mm)	Weight (g)
Zackenberg, Greenland	8260501	135.5	30.0	56.1	29.4	61.0	60.5
Hochstetter F., Greenland	8882713	135.0	25.9	51.1	27.4	57.5	63.0
Hochstetter F., Greenland	8884902	136.0	27.7	53.8	27.6	56.0	60.5
Alaska ($n = 452$) ^a	—	—	—	—	27.6 ± 1.0	—	68.4 ± 8.7

^a From Lesku et al. (2012).

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