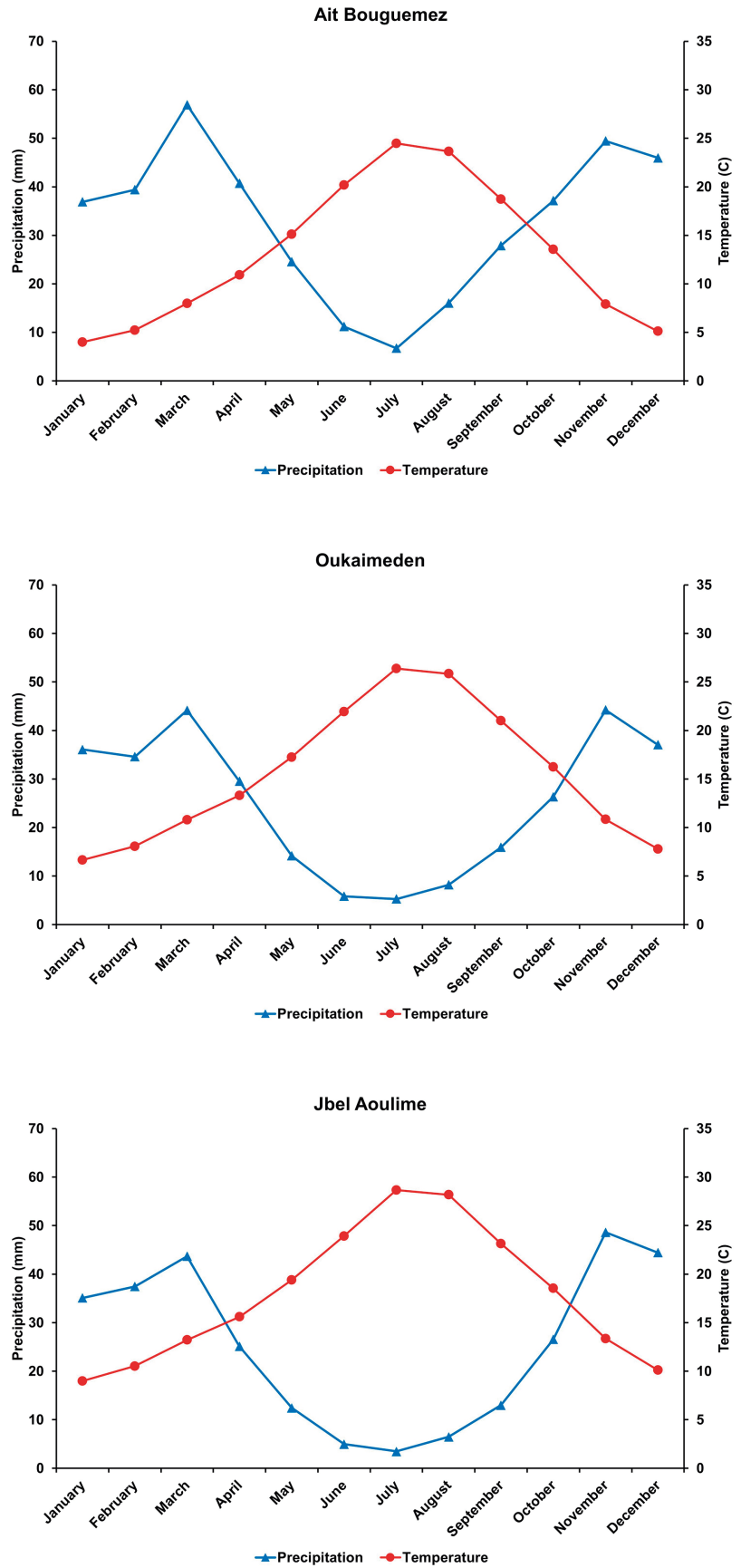


**Supplementary Table S1.** Precipitation, relative humidity, temperature (mean, min and max), wind speed (mean, min and max), earth skin temperature and surface pressure at the three study areas for the last 30 years (1990–2020; www.power.larc.nasa.gov). Min – Minimum, Max – Maximum.

Locality	Month	Total precipitation (mm)	Mean relative humidity (%)	Mean temperature (C)	Min. temperature (C)	Max. temperature (C)	Mean wind speed (m/s)	Min. wind speed (m/s)	Max. wind speed (m/s)	Earth skin temperature (C)	Surface pressure (kPa)
Ait Bouguemez	January	36.89	56.84	3.99	-0.46	10.78	1.65	0.56	3.19	2.45	81.73
	February	39.41	56.67	5.23	0.20	12.26	1.84	0.61	3.50	4.44	81.64
	March	56.89	54.24	7.99	2.21	15.30	2.10	0.68	3.95	7.91	81.50
	April	40.74	51.04	10.94	4.54	18.54	2.26	0.72	4.10	11.62	81.36
	May	24.58	45.00	15.12	8.17	22.88	2.20	0.64	4.04	16.28	81.52
	June	11.22	34.83	20.18	12.74	28.32	2.04	0.49	3.90	21.76	81.75
	July	6.74	24.68	24.48	17.18	32.57	2.01	0.41	4.03	26.11	81.91
	August	16.04	28.45	23.66	16.94	31.49	1.93	0.39	3.95	25.35	81.92
	September	27.91	38.97	18.75	12.69	26.42	1.92	0.43	3.95	19.82	81.82
	October	37.15	49.10	13.58	8.22	20.77	1.82	0.51	3.72	13.73	81.72
	November	49.45	55.57	7.92	3.12	14.95	1.77	0.57	3.51	7.10	81.63
	December	45.97	59.42	5.12	0.70	11.91	1.60	0.56	3.11	3.54	81.75
Oukaimeden	January	36.08	56.44	6.65	1.71	14.11	1.84	0.59	3.66	5.65	86.04
	February	34.58	55.13	8.07	2.60	15.70	2.04	0.65	3.98	7.69	85.93
	March	44.16	52.29	10.81	4.58	18.74	2.21	0.66	4.31	11.09	85.74
	April	29.53	50.29	13.31	6.54	21.58	2.38	0.72	4.50	14.50	85.58
	May	14.17	43.89	17.25	9.79	25.81	2.45	0.70	4.62	19.08	85.69
	June	5.83	34.89	21.95	13.84	30.93	2.40	0.59	4.69	24.46	85.86
	July	5.28	25.16	26.39	18.43	35.25	2.13	0.47	4.37	28.85	85.96
	August	8.17	28.35	25.85	18.53	34.41	2.09	0.47	4.29	28.23	85.97
	September	15.91	38.59	21.00	14.45	29.28	2.15	0.48	4.46	22.85	85.93
	October	26.34	47.28	16.25	10.60	23.82	2.04	0.55	4.19	17.02	85.89
	November	44.24	53.42	10.84	5.80	18.18	2.02	0.65	4.00	10.60	85.87
	December	37.05	58.69	7.80	3.00	15.06	1.94	0.68	3.75	6.79	86.03
Jbel Aoulime	January	35.10	53.95	8.98	3.79	16.67	1.90	0.72	3.52	8.03	89.61
	February	37.47	52.29	10.52	4.84	18.31	2.14	0.83	3.92	10.14	89.48
	March	43.65	49.66	13.22	6.95	21.12	2.32	0.82	4.29	13.48	89.26
	April	25.12	47.48	15.61	8.74	23.88	2.51	0.90	4.52	16.75	89.07
	May	12.44	41.49	19.40	11.93	27.85	2.59	0.89	4.65	21.14	89.14
	June	4.95	33.72	23.93	15.84	32.71	2.48	0.79	4.49	26.28	89.27
	July	3.48	23.52	28.66	20.64	37.41	2.27	0.69	4.36	31.00	89.30
	August	6.48	26.30	28.18	20.85	36.64	2.23	0.66	4.38	30.41	89.32
	September	13.01	36.94	23.13	16.63	31.27	2.19	0.59	4.43	24.89	89.35
	October	26.54	45.36	18.54	12.93	26.02	2.10	0.65	4.19	19.27	89.36
	November	48.61	50.32	13.36	8.21	20.75	2.07	0.79	3.89	13.14	89.39
	December	44.41	56.58	10.12	5.25	17.41	2.00	0.82	3.64	9.21	89.59
Annual totals and averages, respectively											
Ait Bouguemez		392.97	46.23	13.08	-0.46	32.57	1.93	0.39	4.10	13.34	81.69
Oukaimeden		301.34	45.37	15.51	1.71	35.25	2.14	0.47	4.69	16.40	85.88
Jbel Aoulime		301.26	43.13	17.80	3.79	37.41	2.23	0.59	4.65	18.64	89.35

**Supplementary Table S2.** AN(C)OVA-rm of preferred body temperature (Tpref) and evaporative water loss rates [accumulated water loss (EWLa) and instantaneous evaporative water loss (EWLi)] between the three populations of *A. andreanskyi* measured for 11 consecutive hours; in the latter two analyses, transformed snout-vent length (SVL) and transformed body masse (BM) were used as covariables. Significant results (< 0.05) are given in bold.

	df	Tp F	P	df	EWLa F	P	df	EWLi F	P
ANOVA-rm									
Population	2,54	3.114	0.052	2,54	3.774	<b>0.029</b>	2,54	4.447	<b>0.016</b>
Sex	1,54	6.651	<b>0.013</b>	1,54	0.171	0.681	1,54	0.737	0.394
Population × Sex	2,54	0.757	0.474	2,54	2.245	0.116	2,54	2.199	0.121
Time	10,54	5.279	<b>10<sup>-6</sup></b>	11,594	266.878	<b>10<sup>-6</sup></b>	10,54	3.496	10 <sup>-6</sup>
Time × Population	20,54	1.971	<b>0.007</b>	22,594	3.576	<b>0.019</b>	20,54	0.783	0.606
Time × Sex	10,54	3.137	<b>0.001</b>	11,594	0.807	0.413	10,54	0.617	0.634
Time × Population × Sex	20,54	1.225	0.204	22,594	2.203	0.097	20,54	1.567	0.145
ANCOVA-rm									
LogSVL	1,52	2.719	0.105	1,52	0.096	0.757	1,52	0.220	0.882
LogBM	1,52	0.002	0.966	1,52	4.715	0.034	1,52	4.256	0.044
Population	2,52	6.013	<b>0.004</b>	2,52	0.101	0.904	2,52	0.400	0.672
Sex	1,52	2.200	0.144	1,52	0.005	0.946	1,52	0.307	0.582
Population × Sex	2,52	0.418	0.661	2,52	1.453	0.243	2,52	1.543	0.223
Time	10,52	2.223	<b>0.015</b>	11,572	0.084	0.865	10,52	0.400	0.789
Time × Population	20,52	1.482	0.082	22,572	0.627	0.598	20,52	0.597	0.762
Time × Sex	10,52	1.606	0.101	11,572	0.461	0.575	10,52	0.330	0.838
Time × Population × Sex	20,52	1.323	0.158	22,572	1.692	0.176	20,52	1.556	0.149



**Supplementary Figure S1.** Ombrothermic diagrams of the three study areas for the last 30 years (1990–2020; [www.power.larc.nasa.gov](http://www.power.larc.nasa.gov)).