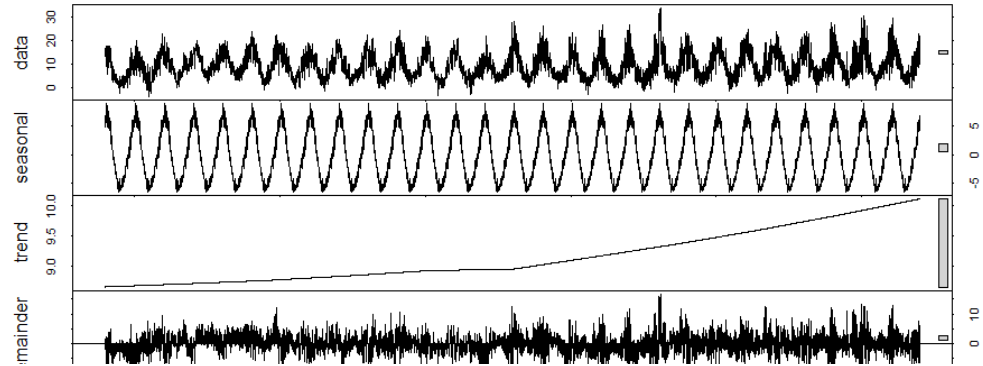


## Supplementary Material

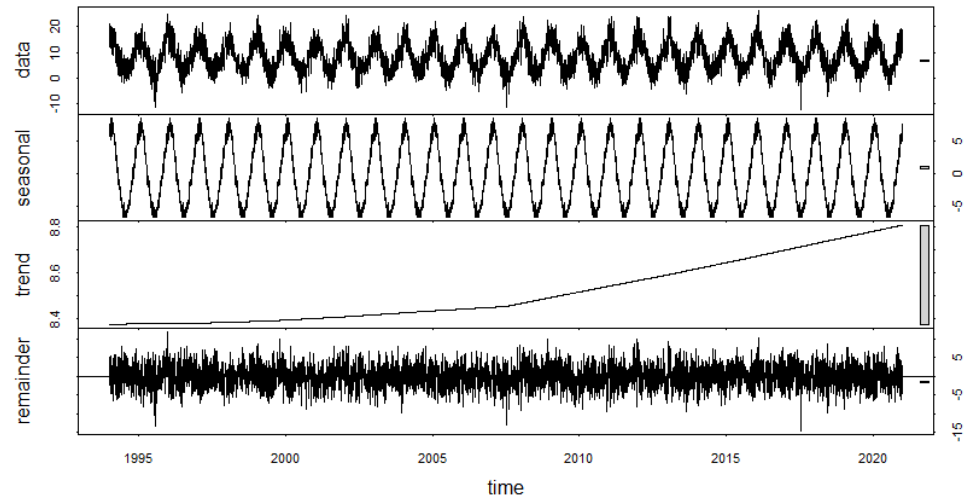
**Figure S1.** Decomposition of daily mean temperature from 1-1-1994 to 31-12-2021 in (A) Alerce, (B) Bolsón and (C) BRC Airport.

**Figura S1.** Descomposición de la temperatura media diaria desde el 1-1-1994 hasta el 31-12-2021 en (A) Alerce, (B) Bolsón y (C) Aeropuerto BRC.

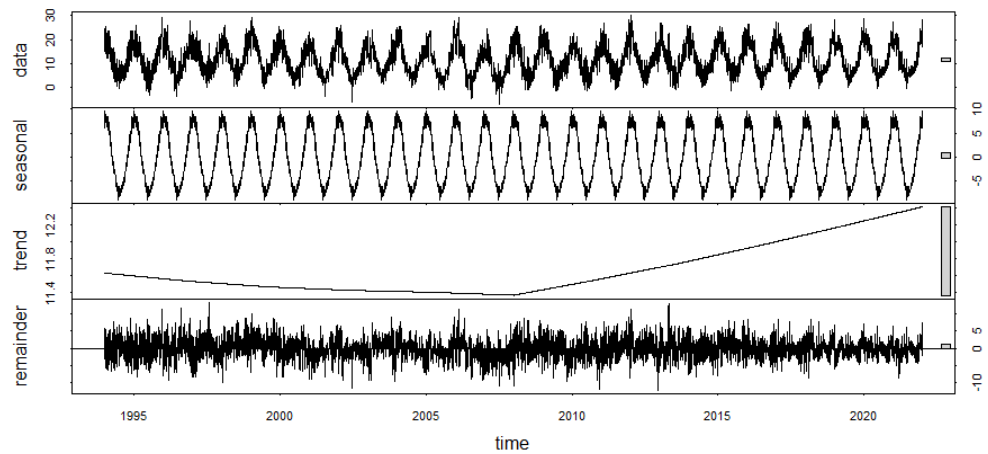
A)



B)



C)



**Table S1.** The summary provides information on the monthly precipitation during the specified time, as well as the explanatory variables (month and month: year) that were considered in the precipitation monthly Generalized Additive Model (GAM) analysis at the La Angostura (2001-2021). P values are reported as: P<0.05\*, P<0.01\*\*, P<0.001\*\*\*.

**Tabla S1.** El resumen proporciona información sobre la precipitación mensual durante el período especificado, así como las variables explicativas (mes y mes:año) consideradas en el análisis del Modelo Aditivo Generalizado (GAM) mensual de precipitación en La Angostura (2001-2021). Los valores de P se indican como: P<0.05\*, P<0.01, P<0.001\*.

		Predictor						
	Parametric coefficients	t-value	Smoothed terms	F	Model r <sup>2</sup> -adj	Model Dev.expl (%)		
MONTHLY								
Model								
<b>LA ANGOSTURA TRANSECT</b>								
Cerro Mirador	JAN	0.97	year : JAN	0.419				
	FEB	-0.61	year : FEB	0.355				
	MAR	-0.05	year : MAR	0.485				
	APR	2.61 **	year : APR	0.447				
	MAY	5.78 ***	year : MAY	0.587				
	JUN	8.13 ***	year : JUN	2.375 *	0.41	67.30%		
	JUL	6.18 ***	year : JUL	0.826				
	AUG	6.98 ***	year : AUG	1.604				
	SEP	2.32 *	year : SEP	0.592				
	OCT	2.58 *	year : OCT	1.203				
	NOV	1.44	year : NOV	0.277				
	DEC	1.17	year : DEC	0.274				
Rincon	JAN	0.16	year : JAN	0.607				
	FEB	-0.878	year : FEB	0.297				
	MAR	0.197	year : MAR	0.358				
	APR	1.95	year : APR	0.385				
	MAY	5.99 ***	year : MAY	0.942				
	JUN	8.33 ***	year : JUN	3.133 **	0.45	69.30%		
	JUL	6.07 ***	year : JUL	1.473				
	AUG	6.39 ***	year : AUG	1.5				
	SEP	1.84	year : SEP	0.834				
	OCT	2.06 *	year : OCT	1.624				
	NOV	1.33	year : NOV	0.572				

	DEC	0.887	year : DEC	0.336		
La Angostura	JAN	0.14	year : JAN	0.39		
	FEB	-0.46	year : FEB	0.303		
	MAR	0.17	year : MAR	0.207		
	APR	2.54 *	year : APR	0.478		
	MAY	6.61 ***	year : MAY	1.128		
	JUN	9.01 ***	year : JUN	2.972 **	0.52	73.40%
	JUL	7.85 ***	year : JUL	1.89 *		
	AUG	7.86 ***	year : AUG	2.508 *		
	SEP	2.64 **	year : SEP	0.924		
	OCT	2.69 **	year : OCT	1.344		
	NOV	1.58	year : NOV	0.417		
	DEC	0.90	year : DEC	0.293		
La Cantera	JAN	1.94	year : JAN	0.22		
	FEB	-0.13	year : FEB	0.08		
	MAR	-0.03	year : MAR	0.09		
	APR	2.23 *	year : APR	0.50		
	MAY	5.22 ***	year : MAY	1.36		
	JUN	8.03 ***	year : JUN	4.21 ***	0.47	70.80%
	JUL	6.92 ***	year : JUL	1.90 *		
	AUG	6.77 ***	year : AUG	3.47 ***		
	SEP	2.40 *	year : SEP	0.64		
	OCT	1.64	year : OCT	1.16		
	NOV	0.60	year : NOV	0.24		
	DEC	0.50	year : DEC	0.31		
Corralito	JAN	0.97	year : JAN	0.14		
	FEB	0.81	year : FEB	0.16		
	MAR	0.84	year : MAR	0.83		
	APR	1.97	year : APR	0.91		
	MAY	6.43 ***	year : MAY	4.73 ***		
	JUN	7.03 ***	year : JUN	3.45 ***	0.43	68.20%
	JUL	6.22 ***	year : JUL	2.55 **		
	AUG	5.32 ***	year : AUG	1.18		
	SEP	2.31 *	year : SEP	0.58		
	OCT	1.45	year : OCT	0.35		
	NOV	0.72	year : NOV	0.05		
	DEC	0.30	year : DEC	0.11		

		Predictor							
		Parametric coefficients	t-value	Smoothed terms	F	Model r <sup>2</sup> -adj	Model Dev.expl (%)		
MONTHLY									
Model									
<b>MANSO TRANSECT</b>									
Manso Inferior	JAN	0.28		year : JAN	0.283				
	FEB	-0.29		year : FEB	0.5				
	MAR	0.19		year : MAR	0.378				
	APR	2.03 *		year : APR	0.976				
	MAY	4.88 ***		year : MAY	1.161				
	JUN	6.71 ***		year : JUN	3.182 **	0.31	54.20%		
	JUL	5.51 ***		year : JUL	2.18 *				
	AUG	5.36 ***		year : AUG	2.48 *				
	SEP	1.44		year : SEP	1.105				
	OCT	1.66		year : OCT	0.62				
	NOV	0.92		year : NOV	0.289				
	DEC	0.06		year : DEC	0.259				
Steffen	JAN	0.56		year : JAN	0.24				
	FEB	-0.36		year : FEB	0.18				
	MAR	-0.18		year : MAR	0.21				
	APR	2.58 *		year : APR	1.11				
	MAY	4.83 ***		year : MAY	1.82				
	JUN	6.25 ***		year : JUN	4.13 ***	0.27	51.90%		
	JUL	4.63 ***		year : JUL	2.12 *				
	AUG	4.60 ***		year : AUG	0.87				
	SEP	0.99		year : SEP	0.94				
	OCT	1.36		year : OCT	0.77				
	NOV	1.12		year : NOV	0.63				
	DEC	0.17		year : DEC	0.20				
Villegas	JAN	3.31		year : JAN	0.31				
	FEB	-0.06		year : FEB	0.30				
	MAR	-0.40		year : MAR	0.23				
	APR	2.05 *		year : APR	2.41 *				
	MAY	3.92 ***		year : MAY	1.87 *				
	JUN	5.25 ***		year : JUN	4.62 ***	0.24	49.60%		
	JUL	3.43 ***		year : JUL	2.05 *				
	AUG	3.55 ***		year : AUG	1.55				
	SEP	0.58		year : SEP	1.01				
	OCT	0.82		year : OCT	0.35				
	NOV	0.58		year : NOV	0.27				

	DEC	0.68	year : DEC	0.40		
Las Bayas	JAN	1.12	year : JAN	0.16		
	FEB	0.13	year : FEB	0.12		
	MAR	0.51	year : MAR	0.28		
	APR	2.29 *	year : APR	0.39		
	MAY	3.57 ***	year : MAY	4.24 ***		
	JUN	3.60 ***	year : JUN	4.87 ***	0.18	45.40%
	JUL	2.27 *	year : JUL	1.21		
	AUG	3.61 ***	year : AUG	1.91 *		
	SEP	1.16	year : SEP	1.00		
	OCT	0.84	year : OCT	0.26		
	NOV	0.09	year : NOV	0.19		
	DEC	0.13	year : DEC	0.23		

**Table S2.** Summary of the response and explanatory variables (longitude of each station and year by longitude interaction) used in the annual precipitation GAM analysis for the La Angostura (2001-2021) and Manso (1994-2021) transects.

**Tabla S2.** Resumen de las variables de respuesta y explicativas (longitud de cada estación e interacción año por longitud) utilizadas en el análisis GAM anual de precipitación para las transectas de La Angostura (2001-2021) y Manso (1994-2021).

		Predictor						
	Dependent Variable	Parametric coefficients	Smoothed terms	t-value	F	Model r <sup>2</sup> -adj	Model Dev.expl (%)	
ANNUAL								
Model	rainfall ~ long + s(year, by = long)							
<u>La Angostura</u>	Rainfall	long 70.69 (Corralito)		3.44***		0.93	94.00%	
Transect		long 71.11 (La Cantera)		5.4***				
		long 71.66 (La Angostura)		11.21***				
		long 71.80 (Rincon)		23.12***				
		long 71.93 (Cerro Mirador)		32.69***				
		year : long 70.69		0.31ns				
		year : long 71.11		1.36ns				
		year : long 71.66		0.83ns				
		year : long 71.80		6.41**				
		year : long 71.93		2.4*				
<u>Manso</u>	Rainfall	long 70.66 (Las Bayas)		3.53***		0.74	75.90%	
Transect		long 71.49 (Villegas)		4.37***				
		long 71.54 (Steffen)		9.78***				
		long 71.78 (Manso Inferior)		14.18***				
		year : long 70.66		0.52ns				
		year : long 71.49		5.95***				
		year : long 71.54		9.86***				
		year : long 71.78		19.09***				