

Table 1 Results of circular statistical analyses testing for the occurrence of seasonality in the phenophases of *L. lucidum*. Significance of the mean angle was assessed by the Rayleigh test. Dates related to the angles are given in parenthesis. Number of occurrences of phenophases (*N*); length of vector *r* (*r*)

Phenophase	<i>N</i>	Mean angle	Angular standard deviation	<i>r</i>	Rayleigh test (<i>p</i>)
Leaf flushing	250	335.83° (Dec 6)	77.66°	0.40	<0.01
Flower budding	175	311.71° (Nov 11)	65.71°	0.52	<0.01
Flowering	110	339.71° (Dec 10)	62.53°	0.55	<0.01
Unripe fruits	231	49.14° (Feb 19)	59.62°	0.58	<0.01
Ripe fruits	300	177.02° (Jun 29)	76.28°	0.41	<0.01

Table 2 Results of generalized least squares for the best model of each phenological event. The t-value and significance are shown for each predictor. Numbers succeeding variables indicate its month time lag. *0.05 $\geq P \geq 0.01$. ** $P \leq 0.01$

	Leaf flushing	Flower budding	Flowering	Unripe fruits	Ripe fruits
pseudo-<i>R</i>²	0.69	0.56	0.58	0.75	0.88
Day length	2.51*	3.38**	3.22**	-0.92	-2.02
Day length (lag2)	-2.62*	-2.13*	-1.01	4.06**	-3.55**
Temperature (lag3)		1.36	1.31	0.38	1.39
Rainfall (lag1)		1.10			
Historical rainfall	1.58				
Solar irradiance	-1.26				
Solar irradiance (lag1)	2.30*				
Solar irradiance (lag2)	2.42*				

Table 3 Results of circular statistical analyses testing for the occurrence of seasonality in flowering and ripe fruits for Araucaria forest areas and *L. lucidum*. Dates related to the angles are given in parenthesis. Different letters in the column “Mean angle” indicate differences between the groups. Native Araucaria Forest (*NAF*); Urban Araucaria Forest (*UAF*); Number of occurrences of phenophases (*N*); length of vector *r* (*r*)

Flowering					
Group	<i>N</i>	Mean angle	Angular standard deviation	<i>r</i>	Rayleigh test (<i>p</i>)
<i>NAF</i>	344	313.23° b (Nov 14)	66.73°	0.51	<0.01
<i>UAF</i>	119	289.03° a (Oct 20)	98.08°	0.23	0.01
<i>L. lucidum</i>	110	339.71° c (Dec 10)	762.53°	0.55	<0.01
Ripe fruits					

Group	<i>N</i>	Mean angle	Angular standard deviation	<i>r</i>	Rayleigh test (<i>p</i>)
<i>NAF</i>	321	53.09° a (Feb 23)	65.61°	0.52	<0.01
<i>UAF</i>	101	346.50° c (Dec 17)	107.93°	0.17	0.05
<i>L. lucidum</i>	300	177.02° b (Jun 29)	76.28°	0.41	<0.01