Table S1. Comparison of purification methods for fresh pigment extracts using the aqueous-acetone extraction method. Average ± standard deviation of absorptions at the wavelengths used for pigment determination and leaf chlorophyll and carotenoids concentrations for centrifuged and filtered extracts. Results of Anova test ($\alpha<0.01$)

Pre-treatment	470 nm	663.2 nm	646.8 nm	750 nm	Carotenoids ($\mu g/cm^2$)	Chl_{a+b} ($\mu g/cm^2$)
Centrifugation	0.394±0.137a	0.378±0.126a	0.151±0.051a	0.002±0.002**a**	16.9±6.1a	75.2±25.3a
Filtration	0.376±0.125a	0.362±0.116a	0.148±0.048a	0.006±0.005**b**	15.7±5.4a	72.7±23.4a

Table S2. Study of extract weight needed to include the absorption readings for pigment quantification into the linear interval 0.300-0.800 using the aqueous-acetone extraction method by leaf age classes. Average ± standard deviation of fresh weight, fresh weight/volume ratio, and absorption at the wavelengths used for pigment determination and leaf chlorophyll and carotenoids concentrations for two leaf age classes. Extracts from 4 and 5 foliar 5 mm-discs were conducted at the same leaf, while extracts from 3 foliar 5 mm-discs were performed at a different set of leaves. N=12 for each age class and disc number.

	Discs No.	Fresh weight (g)	Ratio fresh weight/volume (mg/mL)	663.2 nm	646.8 nm	470 nm	Chl_{a+b} ($\mu g/cm^2$)	Carotenoids ($\mu g/cm^2$)
New	3	0.018±0.002	2.24±0.22	0.247±0.034	0.099±0.015	0.242±0.028	49.1±7.3	10.1±1.1
sprouted	4	0.024±0.002	2.99±0.29	0.300±0.045	0.117±0.016	0.267±0.032	44.1±6.4	9.1±1.1
leaves	5	0.030±0.003	3.73±0.36	0.378±0.058	0.147±0.021	0.334±0.040	44.4±6.5	9.1±1.1
One year	3	0.020±0.002	2.43±0.21	0.421±0.073	0.168±0.029	0.414±0.414	83.5±14.6	20.3±3.0
leaves	4	0.027±0.002	3.37±0.28	0.607±0.124	0.247±0.050	0.620±0.108	91.3±18.5	21.6±3.5
	5	0.034±0.003	4.24±0.37	0.760±0.169	0.309±0.069	0.763±0.139	91.4±20.3	21.1±3.4

Table S3. Average ± standard deviation and range of pigment concentrations on a dry mass and surface basis with the aqueous acetone method of 228 current and previous year *Quercus ilex* leaves sampled during two vegetative periods.

	Chl_a (mg/g) 65ºC	**Chl_b (mg/g) 65ºC**	**$Chla_{+b}$ (mg/g) 65ªC**	**Carotenoids (mg/g) 65ºC**	**Chl_a (µg/cm^2)**	**Chl_b (µg/cm^2)**	**Chl_{a+b} (µg/cm^2)**	**Chl_a/Chl_b**	**Carotenoids (µg/cm^2)**
Average± standard deviation	2.3±0.6	0.7±0.2	3.0±0.8	0.7±0.2	43.5±18.2	12.5±5.5	56.0±23.6	3.5±0.3	0.7±0.2
Max-min	1.3–4.2	0.4–1.5	1.7–5.7	0.4–1.3	13.8–88.4	3.8–30.6	17.9–119.0	2.6–4.4	0.4–1.3