

Table S1. List of reflectance indices automatically calculated by the software of PolyPen RP 410 UVIS in accordance with [54] and used in the work.

Index	Abbreviation	Equation	Reference
Normalized Difference Vegetation Index	NDVI	$NDVI = \frac{R_{NIR} - R_{RED}}{R_{NIR} + R_{RED}}$ <p>where R_{NIR} and R_{RED} are reflectance at near infrared (NIR) and red spectral regions.</p>	[55]
Simple Ratio Index	SR	$SR = \frac{R_{NIR}}{R_{RED}}$ <p>where R_{NIR} and R_{RED} are reflectance at near infrared (NIR) and red spectral regions.</p>	[55]
Optimized Soil-Adjusted Vegetation Index	OSAVI	$OSAVI = \frac{(1 + L)(R_{790} - R_{670})}{R_{790} + R_{670} + L}$ <p>where R_{790} and R_{670} are reflectance at 790 and 670 nm, $L = 0.16$ is correction coefficient.</p>	[56]
Simple Ratio 554/677 Greenness Index	G	$G = \frac{R_{554}}{R_{677}}$ <p>where R_{677} and R_{554} are reflectance at 677 and 554 nm.</p>	[57]
Modified Chlorophyll Absorption in Reflectance Index	MCARI	$MCARI = [(R_{700} - R_{670}) - 0.2(R_{700} - R_{550})] \frac{R_{700}}{R_{670}}$ <p>where R_{700}, R_{670}, and R_{550} are reflectance at 700, 670, and 550 nm.</p>	[57,58]
Modified Chlorophyll Absorption in Reflectance Index 1	MCARI1	$MCARI1 = 1.2[2.5(R_{790} - R_{670}) - 1.3(R_{790} - R_{550})]$ <p>where R_{790}, R_{670}, and R_{550} are reflectance at 790, 670, and 550 nm.</p>	[57,58]
Transformed Chlorophyll Absorption Ratio Index	TCARI	$TCARI = 3 \left[(R_{700} - R_{670}) - 0.2(R_{700} - R_{550}) \frac{R_{700}}{R_{670}} \right]$ <p>where R_{700}, R_{670}, and R_{550} are reflectance at 700, 670, and 550 nm.</p>	[58]
Triangular Vegetation Index	TVI	$TVI = 0.5[120(R_{750} - R_{550}) - 200(R_{670} - R_{550})]$ <p>where R_{750}, R_{670}, and R_{550} are reflectance at 750, 670, and 550 nm.</p>	[57,58]
Zarco-Tejada and Miller Index	ZMI	$ZMI = \frac{R_{750}}{R_{710}}$ <p>where R_{750} and R_{710} are reflectance at 750 and 710 nm.</p>	[57]
Simple Ratio Pigment Index	SRPI	$SRPI = \frac{R_{430}}{R_{680}}$ <p>where R_{680} and R_{430} are reflectance at 680 and 430 nm.</p>	[59]
Normalized Phaeophytinization Index	NPQI	$NPQI = \frac{R_{415} - R_{435}}{R_{415} + R_{435}}$ <p>where R_{435} and R_{415} are reflectance at 435 and 415 nm.</p>	[57]
Photochemical Reflectance Index	PRI	$PRI = \frac{R_{531} - R_{570}}{R_{531} + R_{570}}$	[60-62]

		where R_{570} and R_{531} are reflectance at 570 and 531 nm.	
Normalized Pigment Chlorophyll Index	NPCI	$NPCI = \frac{R_{680} - R_{430}}{R_{680} + R_{430}}$ where R_{680} and R_{430} are reflectance at 680 and 430 nm.	[63]
Carter Index 1	Ctr1	$Ctr1 = \frac{R_{695}}{R_{420}}$ where R_{695} and R_{420} are reflectance at 695 and 420 nm.	[57]
Carter Index 2	Ctr2	$Ctr2 = \frac{R_{695}}{R_{760}}$ where R_{695} and R_{760} are reflectance at 695 and 760 nm.	[57]
Lichtenthaler Index 1	Lic1	$Lic1 = \frac{R_{790} - R_{680}}{R_{790} + R_{680}}$ where R_{790} and R_{680} are reflectance at 790 and 680 nm.	[57]
Lichtenthaler Index 2	Lic2	$Lic2 = \frac{R_{440}}{R_{690}}$ where R_{690} and R_{440} are reflectance at 690 and 440 nm.	[57]
Structure Intensive Pigment Index	SIPI	$SIPI = \frac{R_{790} - R_{450}}{R_{790} + R_{650}}$ where R_{790} , R_{650} , and R_{450} are reflectance at 790, 650, and 450 nm.	[64]
Gitelson and Merzlyak Index 1	GM1	$GM1 = \frac{R_{750}}{R_{550}}$ where R_{750} and R_{550} are reflectance at 750 and 550 nm.	[65]
Gitelson and Merzlyak Index 2	GM2	$GM2 = \frac{R_{750}}{R_{700}}$ where R_{750} and R_{700} are reflectance at 750 and 700 nm.	[65]
Anthocyanin Reflectance Index 1	ARI1	$ARI1 = \frac{1}{R_{550}} - \frac{1}{R_{700}}$ where R_{700} and R_{550} are reflectance at 700 and 550 nm.	[66]
Anthocyanin Reflectance Index 2	ARI2	$ARI2 = R_{800} \left(\frac{1}{R_{550}} - \frac{1}{R_{700}} \right)$ where R_{800} , R_{700} , and R_{550} are reflectance at 800, 700, and 550 nm.	[66]
Carotenoid Reflectance Index 1	CRI1	$CRI1 = \frac{1}{R_{510}} - \frac{1}{R_{550}}$ where R_{550} and R_{510} are reflectance at 550 and 510 nm.	[67]
Carotenoid Reflectance Index 2	CRI2	$CRI2 = \frac{1}{R_{510}} - \frac{1}{R_{700}}$ where R_{700} and R_{510} are reflectance at 700 and 510 nm.	[67]
Ratio Difference Vegetation Index	RDVI	$RDVI = \frac{R_{800} - R_{670}}{(R_{800} + R_{670})^{1/2}}$ where R_{800} and R_{670} are reflectance at 800 and 670 nm.	[57]