

Supplemental information
Uncovered variability in olive moth (*Prays oleae*)
questions species monophyly

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S3 Table: Variables analysed, including bioclimatic and land cover derived maps

Cod.	Description of variables	Retained*	Source
DisOG	Distance to homogeneous olive groves (> 1 ha)	x	[1]
DenOG	Density of olive groves per km ²	x	[1]
DisRG	Distance to riparian gallery	x	[1]
Tmax	mean temperature of the warmest month of the year	x	[2]
Tmin	mean temperature of the coldest month of the year	x	[2]
Tp	Annual positive temperature	x	[2]
Pp	Positive precipitation		[2]
M	mean maximum temperature of coldest month	x	[2]
m	mean minimum temperature of the coldest month	x	[2]
Ic	Simple continentality index	x	[2]
It	Thermicity index	x	[2]
Itc	Compensated thermicity index	x	[2]
los4	Ombrothermic index of the summer quarter plus the previous month		[2]
los2	Ombrothermic index of the warmest bimonth of the summer quarter		[2]
los3	Ombrothermic index of the summer quarter		[2]

Cod.	Description of variables	Retained*	Source
Io	Annual ombrothermic index		[2]
Mac05	Macrobioclimates (Rivas-Martínez 2005)	x	[2]
Mac07	Macrobioclimates (Rivas-Martínez 2007)		[2]
Mac0811	Macrobioclimates (Rivas-Martínez 2008,2011)		[2]
MB05	Macrobioclimates and bioclimatic variants (Rivas-Martínez 2005)		[2]
MB07	Macrobioclimates and bioclimatic variants (Rivas-Martínez 2007)		[2]
MB00811	Macrobioclimates and bioclimatic variants (Rivas-Martínez 2008, 2011)		[2]
Bio05	Bioclimates (Rivas-Martínez 2005)		[2]
Bio07	Bioclimates (Rivas-Martínez 2007)		[2]
Bio0811	Bioclimates (Rivas-Martínez 2008, 2011)		[2]
Mac05C	Macrobioclimates (highlighting vernal-aestival indices compensation) (Rivas-Martínez 2005)		[2]
Mac07C	Macrobioclimates (highlighting vernal-aestival indices compensation) (Rivas-Martínez 2007)		[2]
Mac0811C	Macrobioclimates (highlighting vernal-aestival indices compensation) (Rivas-Martínez 2008, 2011)	x	[2]
Mac05Cc	Macrobioclimates (highlighting vernal-aestival indices compensation considering the annual ombrothermic index) (Rivas-Martínez 2005)		[2]
Mac07Cc	Macrobioclimates (highlighting vernal-aestival indices compensation considering the annual ombrothermic index) (Rivas-Martínez 2007)		[2]
Mac0811Cc	Macrobioclimates (highlighting vernal-aestival indices compensation considering the annual ombrothermic index) (Rivas-Martínez 2007, 2011)		[2]
Ic05	Simple continentality (Rivas-Martínez 2005)		[2]
Ic070811	Simple continentality (Rivas-Martínez 2007, 2008, 2011)	x	[2]
Ther05	Thermotypes (Rivas-Martínez 2005)		[2]
Ther07	Thermotypes (Rivas-Martínez 2007)		[2]

Cod.	Description of variables	Retained*	Source
Ther0811	Thermotypes (Rivas-Martínez 2008, 2011)	x	[2]
Omb	Ombrotypes		[2]
PpDY	Positive precipitation for dry year – it corresponds to precipitation for dry year of Nicolau (2002)		[2]
PpHY	Positive precipitation for humid year – it corresponds to precipitation for humid year of Nicolau (2002)	x	[2]
EqOtDY	Equivalent ombrothermic index for dry year		[2]
EqOtHY	Equivalent ombrothermic index for humid year		[2]
EqOtypeDY	Equivalent ombrotypes for dry year		[2]
EqOtypeHY	Equivalent ombrotypes for humid year		[2]
OAnoDY	Ombrothermic index anomaly for dry year		[2]
OAnoHY	Ombrothermic index anomaly for humid year		[2]

* X indicate variables retained after covariate correlation check

[1] Obtained by GIS analysis based on Portuguese landcover cartography (IGEO, 2016)

[2] Monteiro-Henriques T, Martins MJ, Cerdeira JO, Silva P, Arsénio P, Silva, et al. Bioclimatological mapping tackling uncertainty propagation: Application to mainland Portugal. *Int J Climatol.* 2016;36: 400–411. doi:10.1002/joc.4357