

PREDICTING SUITABLE HABITAT FOR DALMATIAN PYRETHRUM (*TANACETUM CINERARIIFOLIUM* /Trevir. / Sch. Bip.) IN CROATIA

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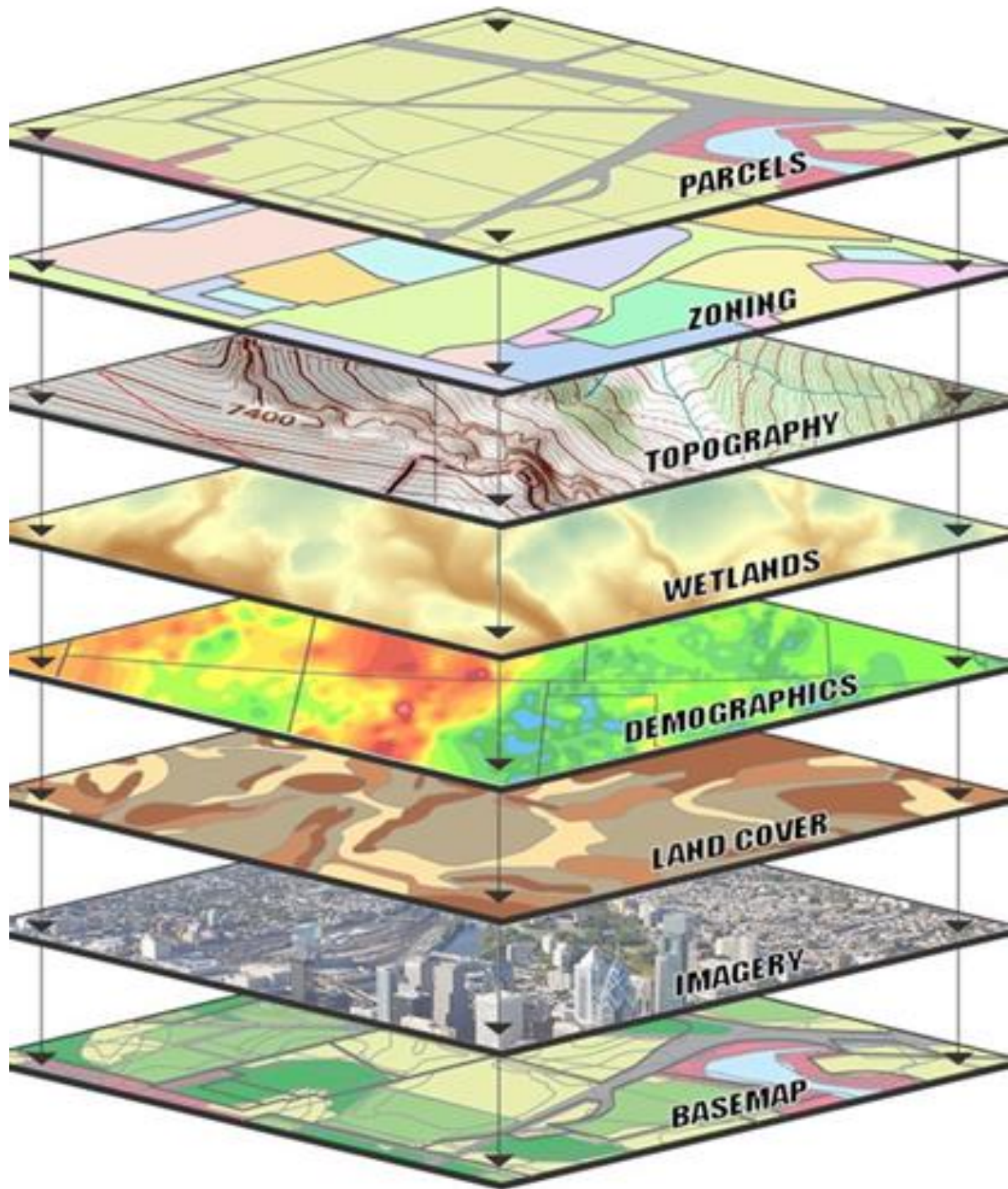
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Suitable Habitat Modelling

- Predict the potential distribution of a species based on finding suitable habitat
- Different for each species based on habitat requirements



Dalmatian pyrethrum

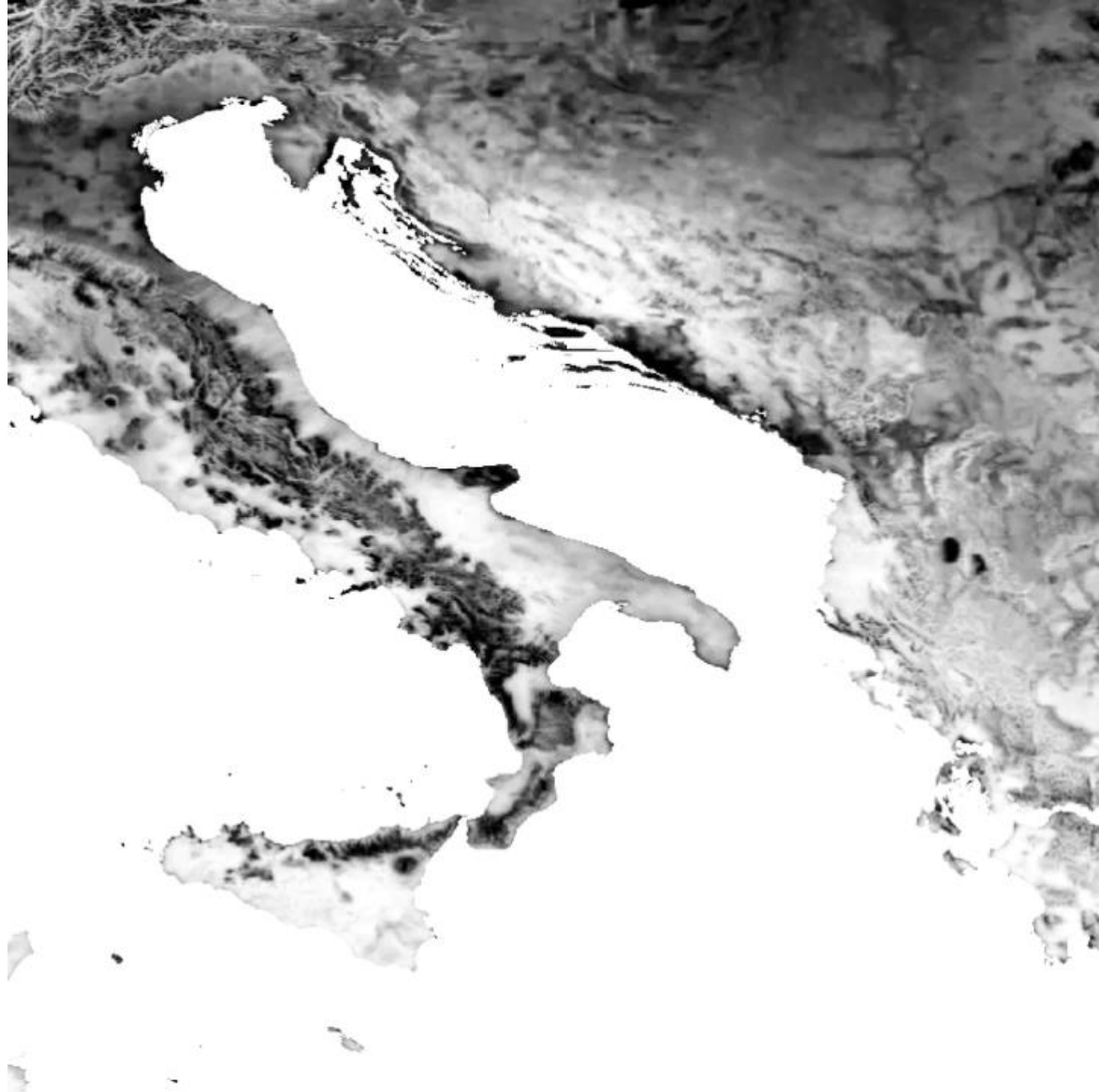


Data

- Herbarium collections
- Literature
- Field studies
- **871** recorded locations
- Sample size: **224**



- Annual Mean Temperature
- Mean Diurnal
- Isothermality
- Temperature Seasonality Max
- Temperature of Warmest Month
- Temperature Annual Range Mean
- Temperature of Wettest Quarter
- Mean Temperature of Driest Quarter
- Mean Temperature of Warmest Quarter
- Mean Temperature of Coldest Quarter
- Annual Precipitation
- Precipitation of Wettest Month
- Precipitation of Driest Month
- Precipitation Seasonality
- Precipitation of Wettest Quarter
- Precipitation of Driest Quarter
- Precipitation of Warmest Quarter
- Precipitation of Coldest Quarter



Bioclimate Variables

Variable selection

01

CORRELATION
BETWEEN
VARIABLES

02

BUILDING
CANDIDATE SETS
OF VARIABLES (90)

03

GENERATING AND
COMPARING
MODEL
PERFORMANCE
(MAXENT)

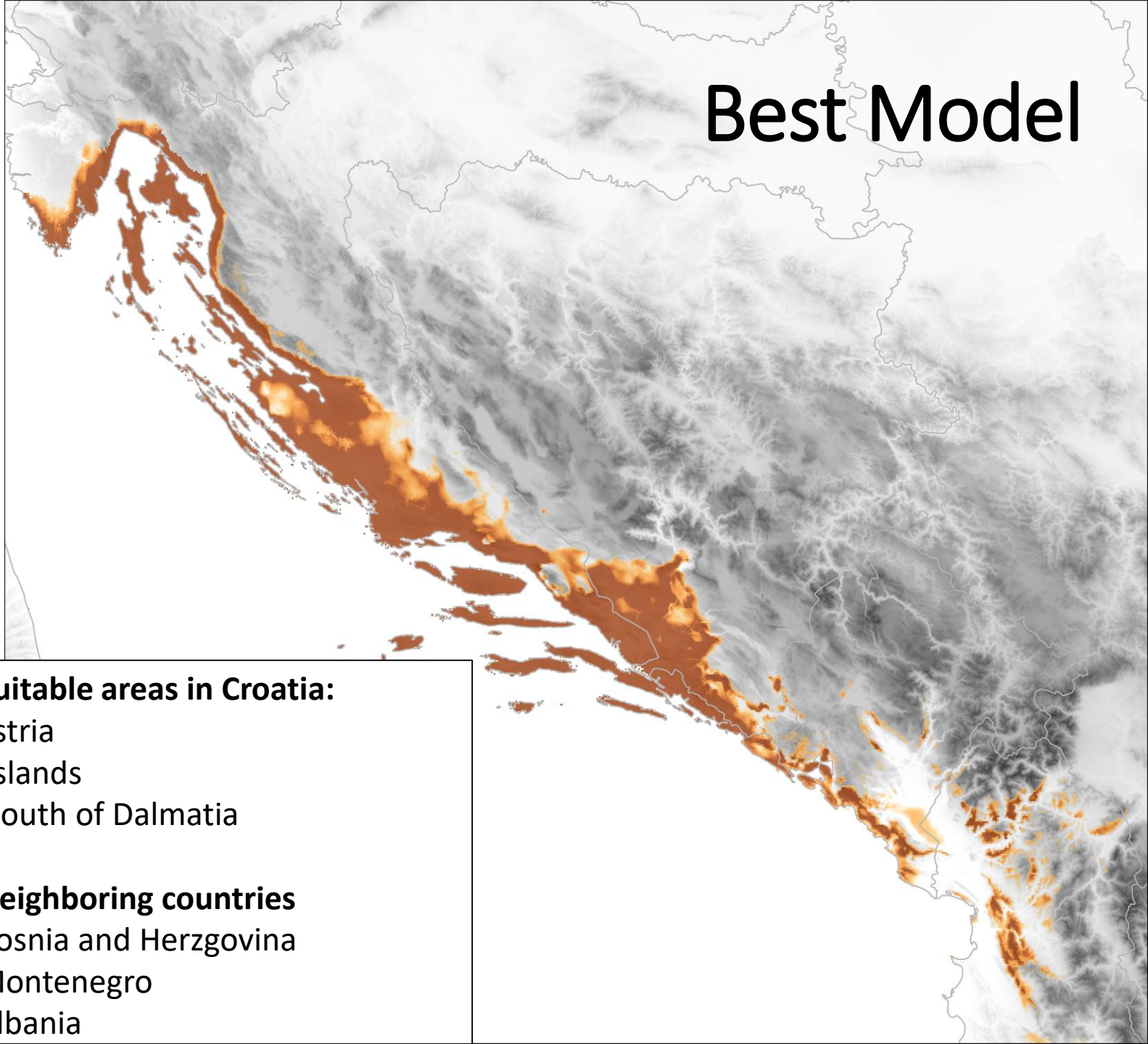
04

SELECTING THE
BEST MODEL
BASED ON AIC_C
(ENMTOOLS)

Best Model

VARIABLE	% CONTRIBUTION	PERMUTATION IMPORTANCE
Isothermality	39.5	11.5
Mean Temperature of Driest Month	37.7	54.2
Precipitation Seasonality	11	18.2
Temperature Seasonality	5.9	12.8
Precipitation of Wettest Month	3.8	3
Mean Temperature of Wettest Month	2.1	0.3

Best Model



- **Suitable areas in Croatia:**

- Istria
- Islands
- South of Dalmatia

- **Neighboring countries**

- Bosnia and Herzegovina
- Montenegro
- Albania

Future Research

A grayscale topographic map of the Himalayan region. A large, irregular area in the western and central parts of the range is shaded in a dark brown color, indicating the focus of future research. The shading follows the mountain ridges and valleys in that area.

- Upcoming field studies
- Expanding the Model
- Change in distribution due to climate change
- Incorporation of genetic data

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Genetic background of Dalmatian pyrethrum (*Tanacetum cinerariifolium* /Trevir./ Sch. Bip.) insecticidal potential (PyrDiv) (IP-06-2016-9034)

