

Comparing populations of *Ambrosia artemisiifolia* in Ukraine and Poland depending on local habitat conditions

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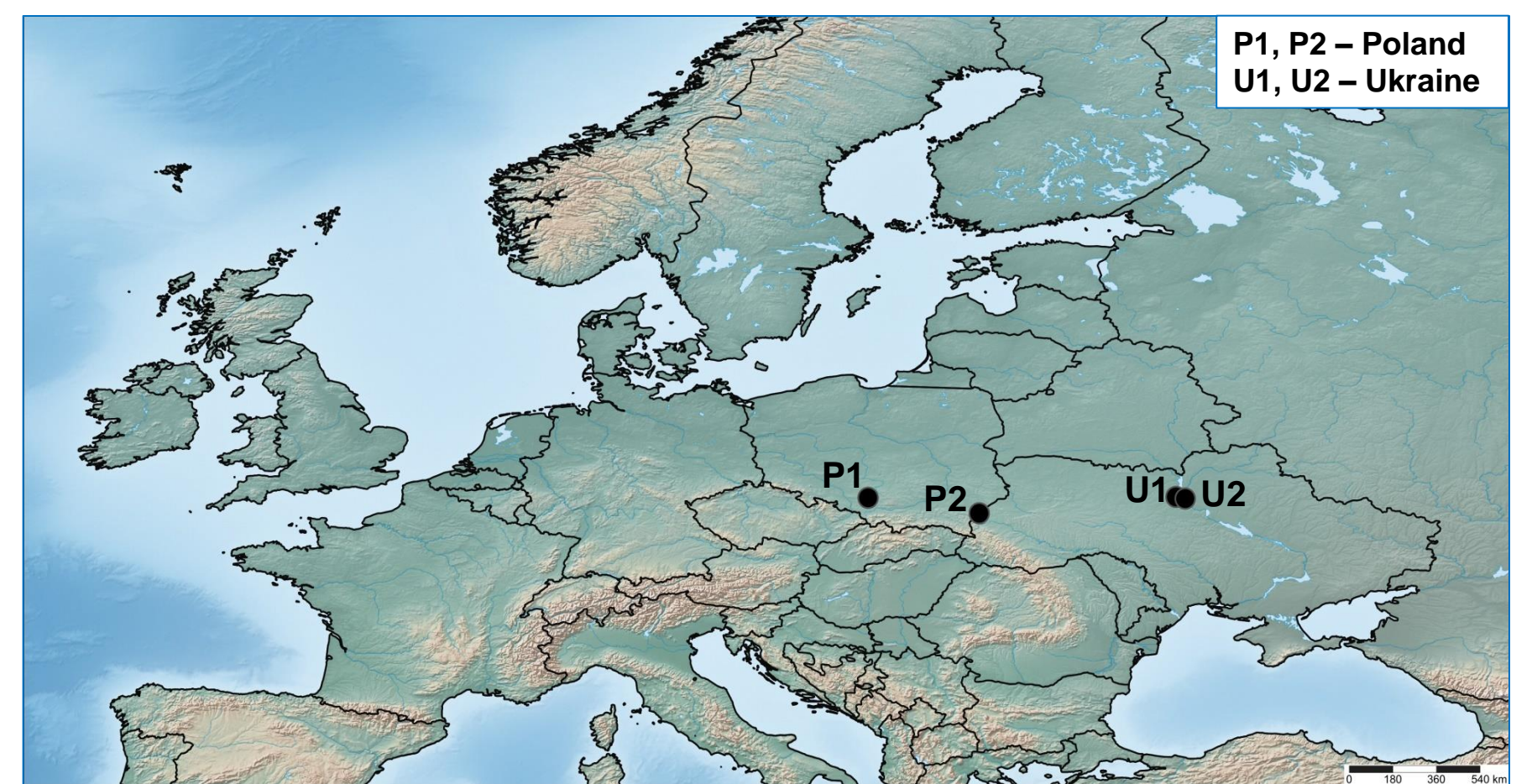
Current status & history

- ❖ an invasive alien species in both Poland and Ukraine
- ❖ most probably cultivated as a medicinal plant, in Poland as early as in the 18th century, in Ukraine since 1914-18
- ❖ in Poland first recorded as an escape in 1873, in Ukraine in 1925



Study sites & methods used

Ambrosia artemisiifolia populations growing in different habitat conditions over three (in two cases two) successive growing seasons. Sites all had established populations of the species of more than 200 individuals within an area of at least 30 m².

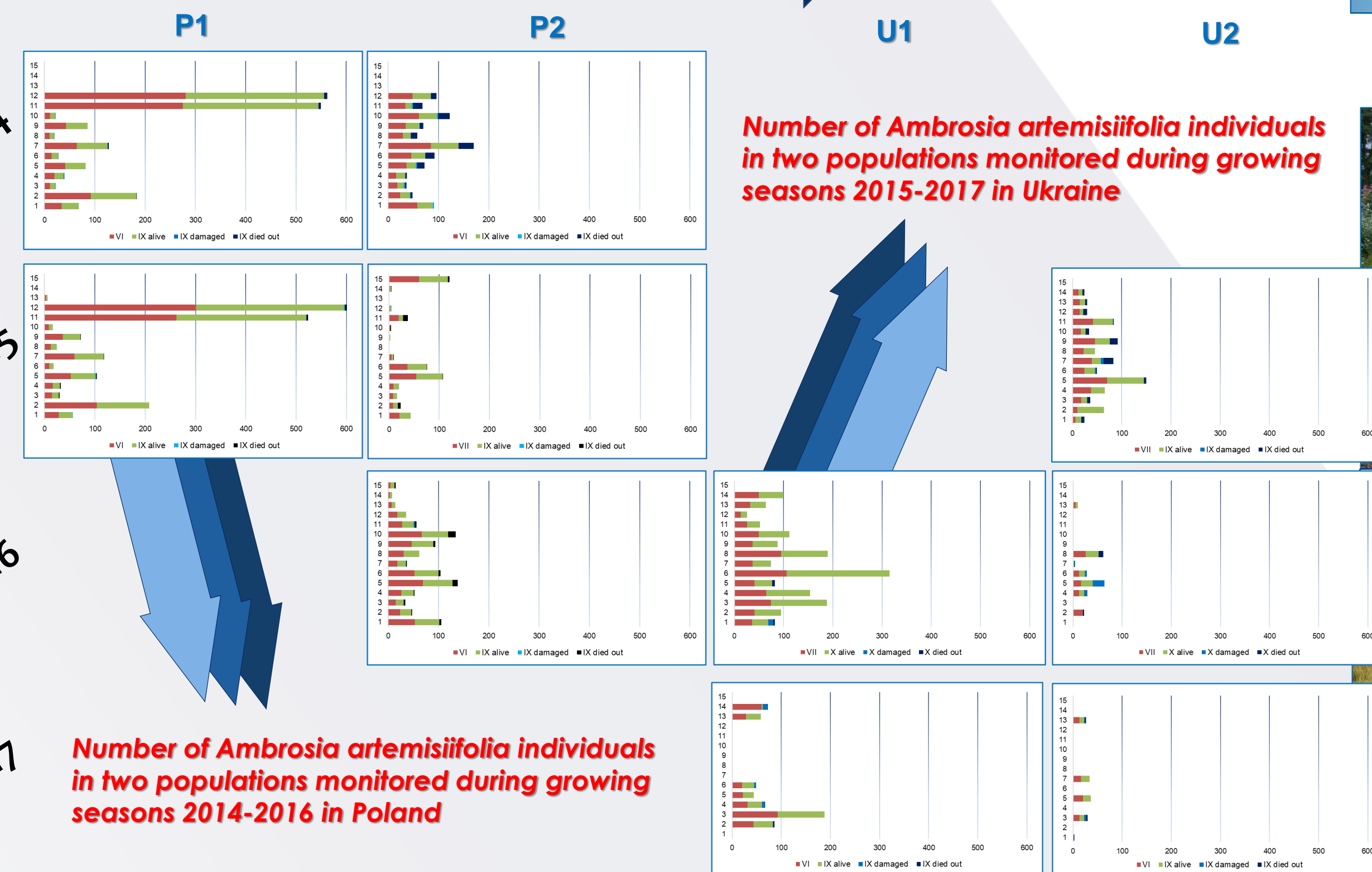


Distribution of the monitored populations of *Ambrosia artemisiifolia* in Poland and Ukraine

Results

Number of *Ambrosia artemisiifolia* individuals in two populations monitored during growing seasons 2015-2017 in Ukraine

Number of *Ambrosia artemisiifolia* individuals in two populations monitored during growing seasons 2014-2016 in Poland



P1 - a disused railway



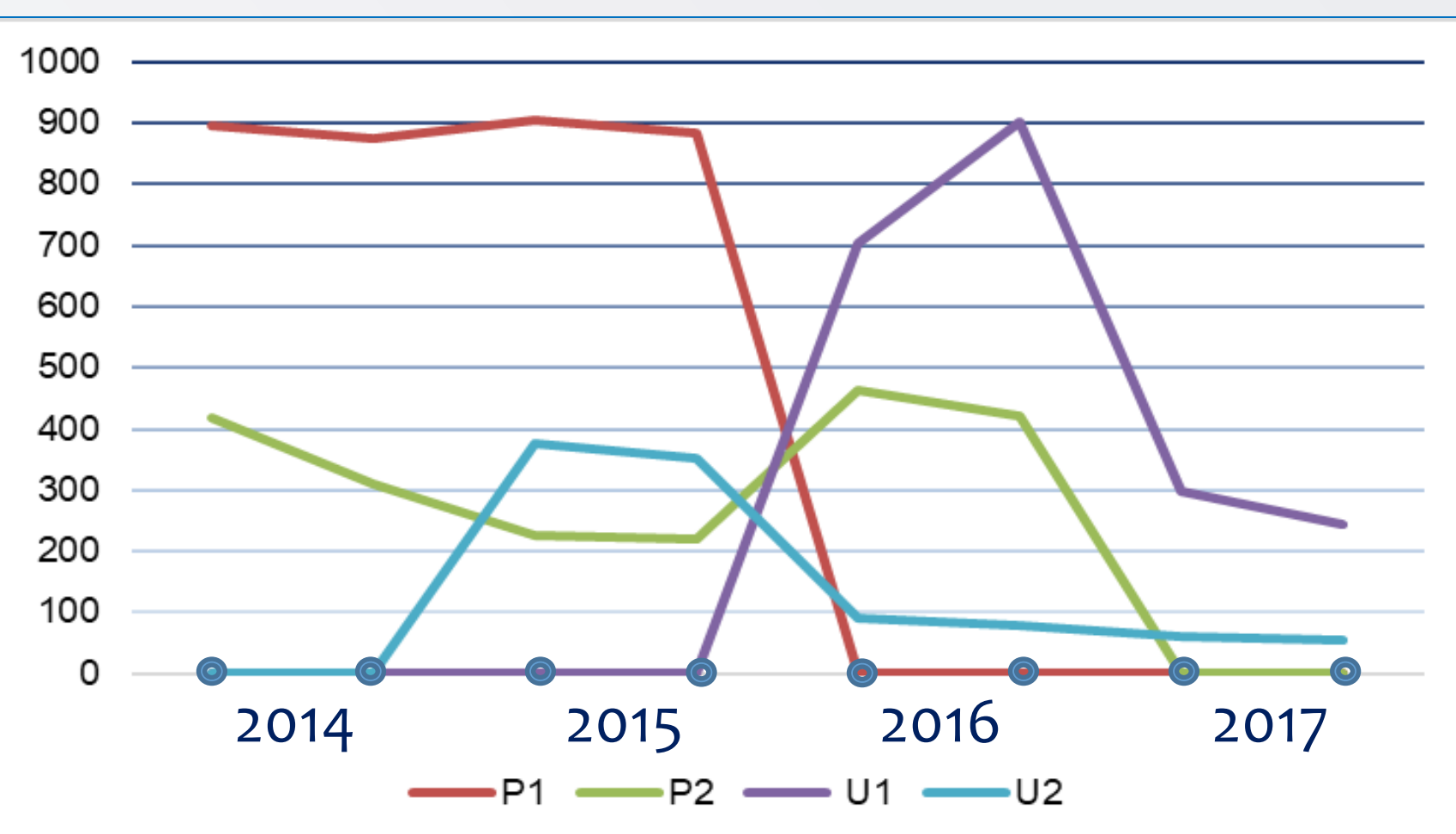
U1 - a sandy area with ruderals



P2 - a dry meadow



U2 - a stand of anthropogenic herbs



Changes in *Ambrosia artemisiifolia* population size at the sites studied in Poland and Ukraine

It established that the Ukrainian populations are similar in general, they are characterized by a tendency to a decrease in all indicators that indicate the presence of regressive processes. According to vitality structures, both populations are becoming depressed, which can be associated with spontaneous succession processes. The two Polish populations differ from year to year. Populations are unstable, and overall remained much more in equilibrium and characterized by fluctuation dynamics.

- ❖ **Population data**
collected twice a year at each site in 14 plots of 0.5×0.5m, in accordance with the methodology developed under the EU Action FA1203 COST-SMARTER
- ❖ **The main population characteristics**
abundance, density, mortality and vitality structure

Lohmmen *et al.* 2017

Conclusions

The dynamics of *A. artemisiifolia* at the population level at the sites studied became rapidly distinguishable, even in such a short research time, and may be driven by changes in climate, local weather, plant density, habitat and vegetation type and also land use.