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THE HISTORY OF SPECIES REACTING WITH RANGE SHIFTS TO THE OCEANIC-CONTINENTAL CLIMATE GRADIENT IN EUROPE. THE CASE OF THE COMMON HAMSTER (*CRICETUS CRICETUS* L.)

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Summary

Species 'range shifts' oscillated in response to cyclical climate changes. Glacial and interglacial cycles in the past often led to increase or contraction of the taxa range. The places where species persist during the period of the species' maximum contraction in range have been described as refuges. The location of refuges' areas depends mainly on the climate adaptation and environmental tolerance of individual species. Most of the bio- and phylogeographic studies performed so far in Europe recognized only one climatic gradient, which is latitudinal (important factor is temperature decreasing northwards). The other climatic gradient, that is often ignored in phylogeographic research, is the oceanic – continental one that in Europe is longitudinal. The common hamster (*Cricetus cricetus*) is the species adapted to continental climate which has lost large parts of its previous range in Western and Central Europe. The causes for this decline are not clearly understood but the main reasons taken under consideration are the changes occuring in agricultural management and urbanization of formerly agricultural areas. However, current shrinkage of the range may also be a response to oceanic climate gradient extending eastwards in Europe.