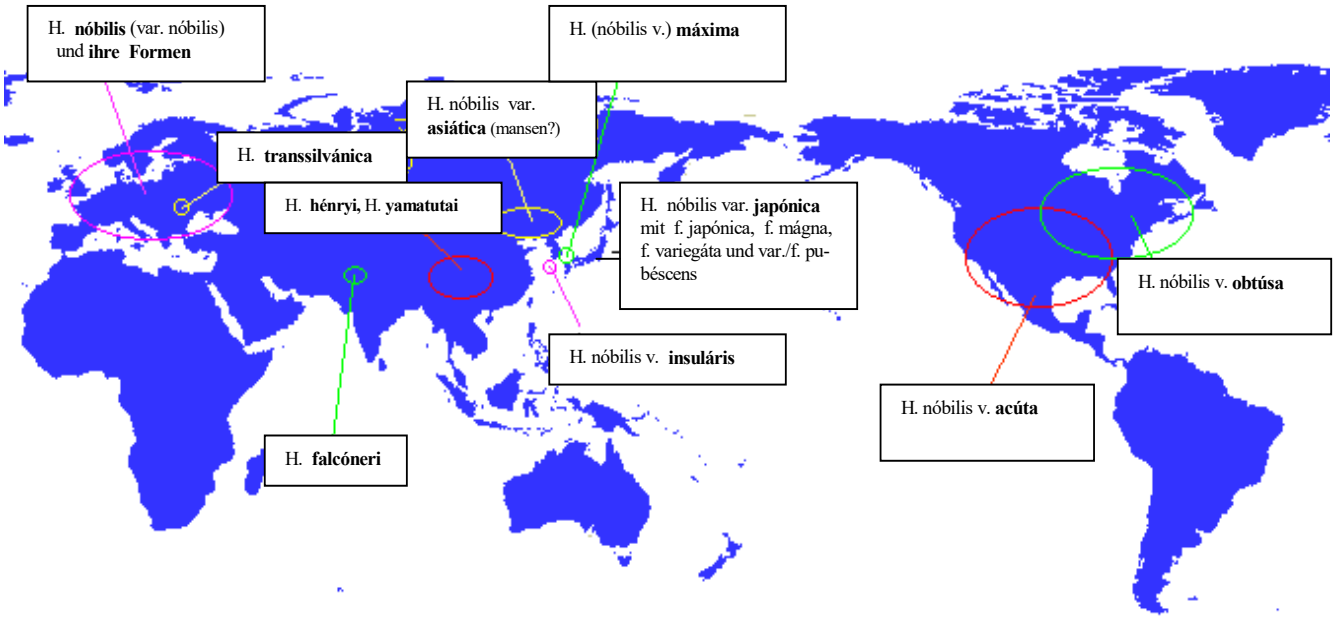
Example of geographic plant race formation through spatial isolation (but still with little or no little genetic isolation):



Geographic differentiation of the genus Hepática in the deciduous forest regions of the northern Hemisphere according to: http://park10.wakwak.com/~moriya/yukiwld.htm

The genus Hepática has a strongly disjunct occurrence in the deciduous forest regions of the northern hemisphere. Hepática nóbilis (var. nóbilis), native to Europe. and forms) is represented in East Asia by at least 7 other species or races: H. nóbilis var. asiática, H. nóbilis var. insuláris, H. nóbilis var. japónica and forms, H. (nóbilis var.?) máxima, H. hénryi, H. yamatútai, H. falcóneri.

Closely related to these are also the two North American races H. nóbilis var. acúta and var. obtúsa: their ranges are secondarily superimposed; despite occasional despite occasional hybridization, their identity is preserved due to different habitat requirements. location requirements.

Even more advanced is the divergence between Hepática nóbilis (var.nóbilis) and the common Carpathian Hepática transsilvánica.

The fact that the disjunctions in Hepática and other deciduous deciduous forest clans are broadly similar points to common historical and climato- probable cause is the reduction of formerly closed distribution areas. of formerly closed distribution areas.

Geographical differentiation - besides ecological differentiation - is is in many cases a very important first phase of the evolutionary process.

All Hepática species require a relatively constant moist substrate (gauze soils). Hepática seeds, Hepática seeds that lie dry for some time after maturing usually do not germinate the following year; the same is true for Hepática species.The same applies to hepática seeds that are exposed to heavy frost without protection. The hepática plants themselves can The hepática plants themselves can withstand a longer dry period only with difficulty or not at all. From this it can be seen that Hepatica species do not originate from drier habitats (like e.g. most onion plants). (like e.g. most bulbous plants), but originate from a relatively constant humid, not too cold habitat. adapted to this habitat - and therefore survived only in such habitats which have remained since the survived since the Late Tertiary.