**Table S4.** F-statistics of hierarchical structuring of genetic variance.



Relationship between hierarchy levels are indicated in rows with ‘/’ indicating ‘within’; Hierarchy A: 3 migratory directions (NW, SW, SE) and 3 migratory distances (short-, intermediate-, long-distance) with the Os population characterized haveing SW migratory direction (dir); Hierarchy B: 3 migratory directions (NW, SW, SE) and 3 migratory distances (short-, intermediate-, long-distance) with the Os population characterized haveing SE migratory direction (dir).