

## Genetic relationships among wild pomegranate (*Punica granatum*) genotypes from Coruh Valley in Turkey

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**ABSTRACT.** The pomegranate has been used traditionally in Coruh Valley in Turkey for a long time; fruits are harvested from wild, semi-domesticated and cultivated trees. In the valley, it occurs in general along with olive trees. We sampled 23 wild-grown pomegranate genotypes sampled from different parts of Coruh Valley and compared them using RAPD primers to determine genetic variability. Eighty-six RAPD primers were used for molecular characterizations, among which 12 gave reliable polymorphic patterns. These primers generated 145 RAPD bands of which 91% were polymorphic. The highest polymorphism ratio was observed with primers OPY06, OPY13, OPBA03, OPBB03, OPBB07, and OPBB09 (100%), while the lowest was with OPBB09 and OPBB10 (75%). The band size was between 250 and 2400 bp. There were five main clusters in the dendrogram; the highest genetic similarity was 0.24 and the lowest was 0.08.

**Key words:** Wild pomegranate; *Punica granatum*; RAPD