

P-41 (48)**CONTRIBUTION OF MOLECULAR PROVES AND HISTORIC MINIATURES, CONFIRMS ROLE OF SILK ROAD IN EVOLUTION OF PEAR CULTIVARS**

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Recent molecular data based on SSR markers and S-alleling, presented evidences for eventual role of inter-specific hybridization between European pears belong to *Pyrus communis* and East Asian species in development of some pear cultivars such as, Dargazi, Natanzi, Ghosi and Gonjuni, originated from north east and central regions of Iran. Both regions were under dominance of Mongol and Safavid empires between 13th and 18th centuries. Also, Persian-style miniatures from both era present valuable evidences for the importance of fruits in the imperial courts, as well as consideration to the exchange of fruits species, especially pomegranates, pears, quinces and apples by the dominant dynasties. According to the historic evidences and recent genetic studies it is believed that East Asian pear species such as *P. pyrifolia* has eventual roles in evolution of some Iranian endemic genotypes and cultivars. Interestingly, these cultivars demonstrate morphological similarities to the eastern species of pear such as round or oval fruit shape and juicy fruit texture, as the miniatures present careful separation on the forms of fruits. These contribute of DNA proves with historic painting present evidences for eventual role of silk road in transfer of pear genetic resources from eastern regions to the western countries of Asia, also role of cultural believes in evolution of endemic and historic pear cultivars, and finally in importance of dominant empires in exchange of germplasm and extension of fruit species and favorite cultivars in dominated area, especially in the surrounding orchards of their capitals.

Keywords: *Pyrus communis* L., SSR markers, S-alleling, Asian pears, Gene flow