Pluteus hispidulus, Pluteus kovalenkoi, Pluteus semibulbosus and Pluteus shikae of the family Pluteaceae (Basidiomycota: Agaricales) collected in the Aegean region of Turkey are new records for the Turkish mycota. In addition, this is the first report of these taxa growing in the forests under domination of Laurus nobilis and the relict endemic Liquidambar orientalis. Photographs, drawings, detailed descriptions and information about locality and habitat of the taxa are given.