

ALKALOIDS OF PAPAVER TAURICOLA

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P. tauricola Boiss. and P. persicum Lindl. have been regarded by some botanists as two separate species but in The Flora of Iran (1966) P. tauricola is listed as a synonym for P. persicum. Previously in The Flora of Turkey (1965) P. tauricola is described as the Turkish species although it has been added that it is possibly not distinct from P. persicum of N. Iraq and Iran. Both names appear separately in the chemical literature and it would seem that there is no difference in the alkaloids obtained from plants identified as P. tauricola or from others identified as P. persicum. The major alkaloids are said to be 1-benzyltetrahydroisoquinoline (armepavine) or proaporphines (mecambrine, pronuciferine) (Santavy, 1970, and references therein).

Distinct chemical forms of the closely related species P. fugax Poir. and P. armeniacum (L.) DC. are known to exist and both of these species possess strains which yield thebaine as their major alkaloid (Phillipson & others, 1973; Phillipson, 1973). In view of the interest in Papaver species as a source of thebaine which can be isolated and then converted into codeine and because of the taxonomic problems associated with P. tauricola/P. persicum it was decided to investigate Turkish material for its alkaloid content.

Capsules of P. tauricola obtained from Malatya were extracted and the major alkaloids identified by spectroscopic (nmr, ms) and chromatographic (tlc) procedures as rhoeadine-type alkaloids (rhoeadine, oreodine). These results contrast with previous findings and demonstrate that at least two different chemical strains of P. tauricola exist. It is evident that more geographical variants of P. tauricola/P. persicum need to be examined chemically in order to establish the extent to which alkaloid variation occurs. Although morphinane alkaloids were not detected in the present investigation their presence or absence from this particular species cannot be regarded as being established.

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