

GLYCOSIDIC CONSTITUENTS OF SOME EUROPEAN POLYGALA SPECIES

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During our systematic study of the glycosidic constituents of *Polygala chamaebuxus* L. (Polygalaceae), we have already isolated (1,2) several new hydroxycinnamoyl esters, saponins, and the known prosapogenin tenuifolin (3). We report here briefly on additional phenolic glycosides of *P. chamaebuxus* and on constituents of other *Polygala* species. Full details on the isolation and characterization of these compounds are available on request to the senior author.

P. chamaebuxus, *Polygala alpestris*, Rchb. and *Polygala comosa* Schkuhr. were collected in the region of Champex VS. *Polygala vayredae* Costa was cultivated in the Alpine Botanical Garden, Champex, Switzerland.

The aerial parts of *P. chamaebuxus* contain a major flavonol glycoside that was identified as rutin. On the basis of their spectral data (uv, ir, ¹H nmr, fabms, dcims), two minor phenolic glycosides could be characterized as syringin and coniferin, respectively. Although the latter two compounds are widely distributed in the plant kingdom, they are described here for the first time in the family Polygalaceae.

Very little is actually known on the constituents of other European *Polygala* species. We therefore undertook a comparative study of *P. vayredae*, *P. comosa*, and *P. alpestris*. Tlc analysis (silica gel, *n*-BuOH-HOAc-H₂O, 4:1:5, organic layer) of the MeOH extracts of the three species revealed the presence of complex mixtures of bidesmosidic saponins which, on basic hydrolysis, yielded tenuifolin as prosapogenin. Cinnamoyl esters similar to those reported from *P. chamaebuxus* (1) were also detected by tlc (silica gel, CHCl₃-MeOH-H₂O, 80:20:2 or EtOAc-MeOH-H₂O, 100:14:7). Basic hydrolysis yielded sinapic and ferulic acids for *P. alpestris* and *P. vayredae* and, additionally, caffeic acid for *P. comosa*. Coniferin and syringin, however, could not be detected in the MeOH extracts of the three species.

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