Field Excursion

To complement the formal proceedings of the Symposium a field trip was organized by Michael Braithwaite, a well-known local botanist. Three localities were chosen in the Scottish borders for critical study, viz. Longmuir Moss, Gordon Moss and a site on the River Teviot, near Kalemouth.

During the excursion Beat Meier and his colleagues from the Dept. of Pharmacy, ETH, Zurich made several pertinent field observations which supplemented their contribution published on p. 229. These observations have not been recorded previously for British collections of the willow species listed. Indeed leaves of European *S. fragilis* have never been analysed critically until their study.

Phytochemical compounds influence the taste of willow bark and leaves. Plant material rich in salicin derivates give a strong bitter taste after chewing for some time. After 30 seconds the bitter taste is remarkable especially in the middle of the tongue and this characteristic is helpful in taxonomic field work. The test was successfully introduced at the field excursion of the willow symposium. *Salix aurita* L., *S. artrocinerea* L. and *S. phylicifolia* L. (leaves) in Longmuir Moss gave no bitter taste, while *S. pentandra* L. leaves were very bitter. The bark and the leaves of *S. repens* L. found in Gordon Moss also gave a bitter taste, whilst *S. daphnoides* Vill. at River Teviot showed bitter bark but no bitterness in leaves. Furthermore, the bark of *S. daphnoides* and *S. purpurea* L. was yellowish on the inner side because of the presence of isosalipurposid, a deep yellow compound.

Willows with bitter-tasting leaves and bark and rich in salicin-derivatives in these structures: *S. purpurea, S. repens, S. myrsinifolia* Salisb. *S. rosmarinifolia* L., *S. pentandra.*

Willows with bitter-tasting bark but poor in salicin-derivatives in leaves: *S. daphnoides, S. phylicifolia, S. fragilis* L.

Willows with bitter-tasting leaves but poor in salicin-derivatives in bark: *S. nigricans.*

Willows poor in salicin-derivatives in both leaves and bark: *S. alba* L., *S. aurita* L., *S. cinerea* L., *S. caprea* L., *S. triandra* L., *S. viminalis* L.