

## Foreword

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*Picea sitchensis* (Bongard) Carrière—*Sitka spruce*. This remarkable species, now the most extensively planted exotic tree in Britain, was introduced by David Douglas as recently as 1831 from the west coast fog-belt of North America where it is native.

When Douglas first described it he wrote "It has the great advantage that it thrives on poor soils, and could become a large and useful tree in Great Britain." How right he was! It is now abundant as a plantation tree over huge areas of Western Britain and in almost all large gardens and policy woods; a success story which is accounted for by the tree's unique combination of qualities—

*its vigour*—it can grow faster for longer periods of time than any other species due to its exceptional photosynthetic efficiency;

*its adaptability*—it thrives in Britain's oceanic climate and tolerates a high degree of exposure and a wide variety of soil conditions;

*its form*—it has a highly persistent single leading shoot so that the stem form of the tree is consistently good;

*its timber quality*—it is one of the most highly-versatile soft-wood timbers and can be used in a range of markets. Notably, it is one of the finest woods available anywhere for paper pulp and it is also a good general purpose whitewood when sawn.

As a species for upland afforestation the tree has been outstandingly successful having found an important niche at a time when the need in Britain has been to establish timber crops on land too poor for farming. Nevertheless, there are many questions which must be addressed concerning its future management, including: how to ensure it continues to grow even better in future; how to ensure it remains in good health; how to introduce variety into its management to enhance environmental values.

The Botanical Society of Edinburgh was formed five years after Douglas introduced Sitka spruce to Britain so that it is not inappropriate that part of the Society's 150th Anniversary celebrations should be to organise a Symposium about it. This was done jointly with the Royal Society of Edinburgh and the Forestry Commission with the object of taking stock of what is now known about the species and what research is needed in the future.

The Symposium was held over a four-day period in October 1986 at the Royal Botanic Garden in Edinburgh and was modelled on two earlier symposia—one on oak in 1973 and one on birch in 1983. As before, the aim was to assess the current state of knowledge of the biology of the species including particularly its

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taxonomy, ecology, physiology, genetic variation, its productivity and uses, and its pests and diseases. In the event, the meeting was brilliantly organised by Dr Roy Watling of the Royal Botanic Garden and retiring President of the Botanical Society of Edinburgh. Over twenty papers were presented by leading authorities in their fields from the Universities, the Forestry Commission, the Royal Botanic Garden, Edinburgh, the Nature Conservancy Council, the Institute of Terrestrial Ecology and the Building Research Establishment. The quality of these papers was excellent and I believe that their publication in these proceedings provides a most valuable reference source and a timely assessment of the state of knowledge and of future prospects for this important species.

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