

## Workshop 2

### Oral presentation

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Planta Europa Oral Abstract (session 2: Scientific Research, Ex situ Conservation, Role of Botanic Gardens)

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(147 words)

### Implementing Plant Conservation Strategy Targets for the *Ex situ* Conservation of Bryophytes

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The Royal Botanic Gardens, Kew is working with the UK statutory conservation agencies on a unique project to develop techniques for the collection, propagation and *ex situ* storage of threatened UK bryophytes.

Collection protocols have been produced which ensure that genetic variation is represented with no detrimental effects to *in situ* populations.

Successful protocols have been developed for the initiation into sterile culture from sporophytes, gemmae, and gametophores and their optimal growth *in vitro*.

Methods have also been established for the long-term storage of bryophytes in liquid nitrogen (cryopreservation). The methodology is being widely promoted internationally.

The collection includes a number of British and European Red list and UK Biodiversity Action Plan (BAP) species. The current focus is to increase the number of priority species in the *ex situ* collection, and to investigate methods for re-establishment (following IUCN guidelines) using material propagated and stored in the laboratory.