

**YALE UNIVERSITY SCHOOL OF FORESTRY AND  
ENVIRONMENTAL STUDIES**

**Graeme P. Berlyn  
Greeley Memorial Laboratory  
370 Prospect Street  
New Haven, Connecticut 06511, U.S.A.  
Phone 203-432-5142, Fax 203-432-3929; E-Mail: graeme.berlyn@yale.edu**

**MEMORANDUM**

DATE: June 14, 2006  
TO: Botanical Society of America  
FROM: Graeme Berlyn  
RE: Report of BSA representative to the Biological Stain Commission

The annual meeting of the Biological Stain Commission was held June 2-3 at the Wyndham Milwaukee Center Hotel in Milwaukee, Wisconsin. I was there as representative of the Botanical Society. I am also a Trustee of the Commission, a member of the Editorial Board of Commission's journal, *Biotechnic and Histochemistry*. Somewhat inexplicably I was also elected President of the Commission. I will be succeeded as President next year, having served a three year term.

The Scientific Session was held on Friday, June 2, 2006. The topic was fixation and had a lot of information of interest to botanists. There has been recent progress in the chemistry of fixation and the first lecture by Dr. Richard Dapson discussed and dramatically illustrated these reaction series. Fixatives preserve by changing the shape of tissue molecules and involve addition, cross-linking and molecular dehydration with subsequent alcohol dehydration. Emphasis was on immunohistochemical staining, IHC. The standard fixative for animal tissue (which also works for plant tissue) is 10% neutral buffered formalin, NBF. This fixative generally requires antigen retrieval by chemical processing. A new fixative for IHC, glyoxal, is proposed that generally does not require antigen retrieval. Full fixation was determined to take three full days, which of course is the traditional time suggested in standard texts of both animal and plant microtechnique. Other topics of interest to botanists are the publication of manuals such as CONN'S BIOLOGICAL STAINS (10<sup>th</sup> Edition, 2002). Plans are underway for CONN'S 11<sup>th</sup> edition. In addition, a new edition of *The History of Staining* is being planned if the copyright can be obtained. The copyright for *Clark's Staining Procedures* has been attained and plans are being made for a new edition. I have offered to rewrite the plant section and would like interested botanists to send me their favorite staining procedures for possible inclusion in the new edition. Bibliographies on stains and staining as published by members of the Biological Stain Commission are being assembled and should be available in the near future. If there are any additional issues that the BSA would like the BSC to consider please let me know.