

**Combining biological approaches to highlight the evolution of *Musa* complex . 6th World *Archaeological* Congress.**

**Dublin. 29th June to 4th July 2008**

<http://www.ucd.ie/wac-6/>

**X. Perrier , F. Bakry , F. Carreel, Ch. Jenny, JP Horry, V. Lebot & I. Hippolyte 2008**

The diversity of the banana complex can be deciphered only by jointly characterizing the original wild species and their relatives, the primitive diploid forms and the triploid varieties. Sexuality, the primary source of diversity, is strongly disrupted in the cultivated varieties (sterility, parthenocarpy and vegetative propagation) and is relayed by human selection of punctuated mutations vegetatively maintained. Many biological tools illustrate peculiar facets of the diversity and their joint analysis enables an evolutionary reading of this diversity. The access to forms resulting from ancient events and vegetatively maintained is a valuable asset. We propose various assumptions in the structure of wild species, on the domestication of the edible diploids from hybrids between wild forms, on the direct ancestry of triploids from cultivated diploids, and on the ancient migrations. The comparison with data from archaeology, linguistics and human genetics will enable the validation, refinement and dating of the proposed domestication process.