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FLUIDIS

The problem of discoloration of plants preserved in fluid in botanical collections

OBJECTIVES

The collections of specimens in fluids are an important part of the Natural History collections of our scientific cultural heritage. They can be found in botanical gardens, natural history museums, medicine and universities collections, in "Cabinets of curiosities" or other kind of museums.

The fluids collections have conservation issues that are very unique and specific, like evaporation of the solvent, airtightness, chemical and biological hazard, fragility of the container made of glass. The most specific problem is due to the discoloration of the specimen, which change the colour of the fluid used for conservation.

This project will allow the UR-Arc CR to develop a research line on this kind of heritage and to elucidate the phenomenon of specimen's discoloration.

PROGRAM

The research program includes :
- A survey concerning the discoloration of plants in fluid, through a bibliographic review, an exchange of information with different collections curators and the observation of collections;
- Preparation of samples using plant species more subject to discoloration, and the test of different fixatives;
- An analysis of the causes and the mechanisms involved in the process of discoloration.

RESULTS

The main purposes of this study are :
- Determine the species concerned by discoloration;
- Understand the phenomena (causes and the mechanisms) involved in the discoloration of plant's specimens;
- Understand the mechanism of this peculiar problem and establish the basis for the development of a research line on fluid collections that will include the evaluation of sealant materials and airtightness of the jars and methods for the maintenance of fluid collections.

FUNDING
Haute Ecole Arc

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PARTNERS
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DURATION
12 months
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