



110° Congresso della Società Botanica Italiana onlus

Pavia, 14 - 17 September 2015

ABSTRACTS

KEYNOTE LECTURES, COMMUNICATIONS, POSTERS

II INTERNATIONAL PLANT SCIENCE CONFERENCE (IPSC)

“NOT ONLY FOOD: SUSTAINABLE DEVELOPMENT, AGRO-BIODIVERSITY
CONSERVATION & HUMAN WELL BEING”

ISBN 978-88-85915-16-9

5. = THE DISCOVERY OF PLANT BIODIVERSITY BY CHILDREN THROUGH THE ANIMATED MOVIES: ALICE IN WONDERLAND

GIANNANTONIO DOMINA¹, PATRIZIA CAMPISI², FILIPPO SCAFIDI², STEPHEN L. JURY³

¹Department of Agricultural and Forest Sciences, University of Palermo, Via Archirafi 38, 90123 Palermo, Italy, e-mail: giannantonio.domina@unipa.it; ²Department STEBICEF, University of Palermo, Via Archirafi 38, 90123 Palermo, Italy; ³Plant Science Laboratories, The University of Reading, Whiteknights, Reading, RG6 6AS, UK

The discovery of biodiversity in children occurs through various channels: either through direct contact with the outside world, and indirectly through paintings, games and the media.

Since 1937, Walt Disney Animation Studios realized animated movies inspired from novels. The first feature film was "Snow White and the Seven Dwarfs". Since this, Disney's studios realized more than 10 dozen movies.

The feature that distinguishes these works from a technical point of view is the attention to detail especially for the scene where the action takes place. Animals are often the protagonists of these stories, rarely plants.

A good example of the latter is in "Alice in Wonderland", a movie distributed in 1951 that tells the story of the discovery by Alice of an unmusical, fantasy-filled world beyond her imagination populated by odd human and plant and animal characters. The plot of this film is taken from "Alice's Adventures in Wonderland", an 1865 novel written by Charles Lutwidge Dodgson under the pseudonym Lewis Carroll with several inclusions of the sequel "Through the Looking-Glass" another novel by the same Lewis Carroll, published in 1871. Both are novels full of symbolism, mathematical allusions and satire and contain the customs of England in the Victorian Age.

Alice, in the real and in her imaginary world, moves within scenarios in which plants are the main background. But it happens in the scene in which Alice is in the flower garden that flowers come alive and become characters of the story. This scene is inspired by the second chapter of the "Through the Looking-Glass" titled "The garden of live flowers". In the novel, Alice comes up a hill along a winding path, that houses a flower garden populated by daisies, a weeping willow, a lily, a rose, a larkspur and a violet. The real work of exaltation of plant biodiversity is made in the film by Walt Disney where in a scene of about 5 minutes more than 20 flowers are presented.

In the scene are clearly identifiable: *Bellis perennis*, *Cestrum elegans*, *Chrysanthemum indicum*, *Convallaria majalis*, *Cyclamen persicum*, *Delphinium* sp., *Hyacinthoides non-scripta*, *Ipomoea violacea*, *Iris germanica*, *Leucanthemum ×superbum*, *Leucanthemum vulgare*, *Lilium candidum*, *L. davidii*, *Narcissus incomparabilis*, *N. pseudonarcissus*, *Nelumbo nucifera*, *Ranunculus asiaticus*, *Rosa indica*, *Salix babylonica*, *Syringa vulgaris*, *Taraxacum* sect. *Taraxacum*, *Viola odorata*, *V. ×wittrockiana* and *Zinnia* sp. It is a real triumph of sounds and colours that leave the spectator delighted.

The theme of the plants between knowledge and representation has been the subject of international meetings and scientific contributions. Studies about the representation of plants in pre-Christian (1), during the Middle Ages and in European art of the XIV - XVII have been done (2). In our case the plants drawn in Alice in Wonderland seems to belong more to the plants cultivated in the Americans gardens of during 1950's, when the film was made, rather than to the English gardens of the Victorian era where the novel is set. Nevertheless these drawings approach children, and the adults accompanying them in the vision, to the biodiversity of flowering plants cultivated. Offering to the spectator a wide representation of plants commonly grown with their shape and colours.

Certainly, "Alice in Wonderland" is a good example of how even cartoons, such as fairy tales, can play an educational role, as they allow the child to learn while having fun. In particular, this cartoon can be a good teaching tool for knowledge of plant biodiversity. In fact, it can provide many ideas for developing a number of educational activities to be proposed in both the kindergarten and in the primary school, intended to make understand even the youngest children the meaning and the value of plant biodiversity, as well as to know some plants and their growth environments. Therefore, it would be desirable in the future to take into account such aspects, uncommon in animated films for children. In consideration of the now urgent need to fill several gaps of knowledge, widespread in the younger generation (3) in respect of the plants and the environment in general.

1) P. Mazzola, F.M. Raimondo, R. Schicchi (2003) *Bocconea* 16(1), 311-321

2) G. Moggi (1989) *Atti Conv. "Il mondo delle piante: cultura, rappresentazioni ed usi sociali dal XII al XVII secolo"*, Firenze, 123-140.

3) A. Bebbington (2005). *J. Biol. Educ.* 39(2), 63-67.