

ACCLIMATIZATION OF WILD SPECIES FOR FLORICULTURE: NEW NEEDS AND NEW CONSTRAINTS, IN CONNECTION WITH THE CLIMATE CHANGE

C. DUCATILLION

Jardin Botanique de la Villa Thuret, Institut National de la Recherche Agronomique, 90 Chemin Raymond, 06160 Antibes, France. Catherine.Ducatillion@paca.inra.fr

One of the specificities of the Botanical Garden “Villa Thuret”, which is also a small Arboretum, is to contribute to the gradual enhancement of the ranges of plants that can be used for floriculture, forestry or other activities; many species that have been introduced and “acclimatized” for more than 150 years have thus participated in the creation of the special Riviera landscape (Ducatillion *et al.*, 2010). Some species have been developed also for cut flowers (Ronco *et al.*, 2005). Today, current constraints on the maintenance of urban green areas mean that plant science engineering is being called upon more and more, notably concerning the choice of suitable plants in the context of climate change and its consequences on water resource. In fact, the multiplicity of criteria to be taken into account makes it necessary to possess a sound knowledge of these complex organisms. That is why we try to provide both biological resources and botanical expertise to choose new species that have strong potentialities for those new uses (Donvez *et al.*, 2009).

In the meantime, Hulme (2011) criticizes the role of Botanical Gardens in the introduction of exotic plants and denounces their responsibility in the diffusion of invasive species. However, these institutions, thanks to both their historical and scientific dimensions, are in good position to have hindsight on some species introductions. They can participate to the development of decision helping tools allowing limiting the introduction of species that can be found dangerous. They can also contribute to a real long term prevention plan as well as to the conservation of ecosystems while being one of the preferential partners of the horticultural field.

Villa Thuret, as a research and development institution and as a Botanical Garden has engaged itself to make the acclimatization process evolve and to develop the choice and use precautions of plants issued from this process. It contributes to the study of invasive species, look like *Acacia dealbata* (Breton *et al.*, 2008) and to the elaboration of national plans of struggle likewise the one of *Cortaderia selloana*, while offering to the horticultural field substitution species that would be able to replace dangerous species (Ducatillion, 2008).

Ducatillion C., 2008. Changements et plantes de substitution. Cas des espèces envahissantes. Vers une ville bioclimatique: la nature en ville. Colloque territorial européen. Montpellier

Ducatillion C., Blanc-Chabaud L., 2010. L'art d'acclimater les plantes exotiques. Le jardin de la Villa Thuret. Quae. 190 p.

Donvez J., Ducatillion C., 2009. New challenge for Mediterranean horticulture and landscape planning. How can the Villa Thuret project contribute to the urban's society's demand for green? 2nd International Conference on Landscape and Urban Horticulture. Bologne

Hulme P., 2011. Addressing the threat to biodiversity from botanic gardens. - Trends in Ecology and Evolution 26: 168-174.

Breton C., Guerin J., Ducatillion C., Médail F., Kull C.A., Berville A., 2008. Taming the wild and ‘wilding’ the tame: Tree breeding and dispersal in Australia and the Mediterranean. Plant Science 175: 197–205

Ronco L., Graff V., Cambournac L., 2005. Rameaux décoratifs. Guide pratique. ASTREDHOR. 123 p.

INDICE