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## Dendrobiology – background and the future

### Introduction

The 44<sup>th</sup> volume of “Arboretum Kórnickie”, the annual publication of the Institute of Dendrology, was the last one with this title. It does not mean, however, a dramatic shift in the activity of the Institute and the profile of the annual. We simply realised, that the traditional approach to research and publishing was not sufficient and needed to be modified.

The development of increasingly sophisticated research equipment and the means of communication required changes in certain aspects of our publication. The most visible, although maybe not most important of those changes, is the new title “Dendrobiology”.

### The beginnings and the tradition

The first idea of a research centre for biology of trees and shrubs in Kórnik was formulated over 150 years ago. Tytus Działyński (1796–1861) and his son Jan (1829–1880) created an initial project, which demonstrated deep awareness of the problems and the vision of the future research. Their ideas, still current, created the foundation for today’s Institute.

Initially, the financial support was provided by Władysław Zamoyski Foundation, including his estate with the castle, the park and its rich dendrological collection. Later history, closely connected with the history of the country, was rather complex and difficult. The turning point, however, was 1953, when the institution was taken over by the Polish Academy of Science, and two years later, with the publication of the first issue of “Arboretum Kórnickie”.

In the first period the main subjects of the research papers were documentation and phytogeography. Very

important monographies such as *Populus alba* and *P. nigra* were than published, but also numerous papers on systematics, descriptions of dendrological collections and parks, reports from botanical expeditions, reviews and documentation of field experiments. Almost all articles were in Polish, with only summaries in English, French, Russian and German. Almost all of the seventy authors were from the Kórnik Institute.

The first work based on laboratory research appeared in the sixties and became increasingly important for the Institute and “Arboretum Kórnickie”. There was a growing number of reports on physiology, genetics, biochemistry, generative and vegetative propagation, mycorrhiza and environmental protection. As the image of our annual publication evolved, so did the international relations and the means of communication.

### Proposed changes

We were confident that several changes needed to be made to bring our annual publication in line with the current objectives of the Institute.

- The title “Arboretum Kórnickie” was no longer adequate for the broad spectrum of research areas important to our vision of the Institute, which is more and more involved with the broad notion of biology. There fore our new title “Dendrobiology”.
- We decided to make our publication open to all researchers working in the field of biology of trees and shrubs, regardless of the country they live in or the institution they are affiliated with. This is also an invitation to collaboration in a very broad sense. We are publishing our “remarks for Authors” in other related papers and on the Internet. [www.idpan.poznan.pl](http://www.idpan.poznan.pl)

- The areas of interest have shifted towards laboratory research involving sophisticated and very precise equipment. We understand that the value of such research is largely based on the quality of the equipment used and statistical methods employed, and it is of a great concern to the editors.

### **The vision of the future**

The new title reaches to the original tradition – the basic biology of trees and shrubs, the idea of Działyński's to maintain and enrich the forests and, further, the vegetation. It is also an expression of a current trend in research.

The 21<sup>st</sup> century should be the “century of biology”. We are aware that the increasing conflict between technology of modern civilisation and natural environment requires study of the reactions of plants to different stressors, anthropogenic and natural, and climate changes. The green cover of the Earth is en-

dangered not only by the industrial pollution, but also by hydrological imbalance, deregulation of phenology, adaptation and evolution problems concerning extinction of native taxons, and introduction of foreign ones. Hence our interest in bioindication and genetics.

Many problems regarding productivity and mycorrhiza require basic knowledge of physiology, biochemistry and biotechnology, and “Dendrobiology” will need close collaboration in these areas of research. It is apparent, however, that traditional problems of systematics, chorology, and phytogeography will also have their place in the new “Dendrobiology”. Our aim is to preserve our long tradition, but at the same time create a modern and innovative publication.

Editor of Dendrobiology  
Tadeusz Przybylski