

ROMANIAN FORESTRY SCIENCE IN AN EUROPEAN CONTEXT

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ABSTRACT

In the opening part, the paper states that science knows no country, but each country needs a national science, which is confirmed in the case of forestry science.

In the evolution of the Romanian forestry science, several stages have been highlighted:

- stage of borrowings from other countries (France, Germany), which lasted until the fourth decade of the 20th century;
- stage of the first national scientific substantiations, which started with the establishment of the Forest Research Institute (in 1933);
- stage of maximal scientific creativity (1960-1980), when Romanian forestry science has promoted itself on the European level;
- stage of decline, still lasting in the period of transition towards a market economy.

Then the paper presents the forest vocation of the Romanian youth and the high scientific potential of the Romanian forests, which, used properly, will promote Romanian forestry science in Europe.

The main actions for integrating Romanian forestry science with one of the European Union countries are mentioned. Romanian forest research will be able to substantially contribute to the development of the European forestry science, as it happened in the period 1960-1980.

Keywords: history of forestry sciences, forestry history, European integration of Romanian forestry.

SCIENCE KNOWS NO COUNTRY

Louis Pasteur has said, long time ago, that “Science knows no country”; at present, everything confirms this statement. Science can be seen as Brâncuși’s “Infinite Co-

lumn”: infinite, without frontiers, but with pillars strongly anchored in the national realities.

Undoubtedly, the future belongs to a multinational science. But, first of all each country has to develop its own science, which to become a multinational one.

Therefore, “Science knows no country”, but each country needs a national science; it even has the obligation to contribute, by its own forces, to the development of the world science.

In this situation a question arises: is the globalization as actual and important for forestry and forestry sciences? Probably yes. Forestry and silvobiology cannot be left outside this unstoppable process when the globalization tends to cover also the political and economical levels. But in forestry and forestry sciences, the globalization is a long-term and hard process. Higher chances are related to European integration processes of forestry sciences.

We know that the forest is a geographic phenomenon; so is forestry. We can accept the idea of a European forest science, provided that it has strong national, regional roots and manifestations. Moreover, European forestry science is not only a sum of the national forestry sciences; in this field, more than in others, there are synergies that result in new processes and evolutions.

Unfortunately, despite all the great efforts of the International Union for Forest Research Organizations, established and developed first in Europe, still there is no *integrated* European forest sciences.

The explanation is that probably there are still many black spots on the map of scientific knowledge related to the set up of forest ecosystems and that the national forest sciences are still not enough developed, despite the definite progress experienced until now, more in the countries with a long tradition in forestry, and less in the young, recently formed countries.

BRIEF HISTORICAL OVERVIEW

In the history of our country, we can observe a step-by-step evolution of forestry related to scientific substantiation and its contribution to the development of the European forest sciences.

Until 5-6 decades ago, Romania did not have a national forestry, based on own scientific researches. But it had a “*borrowed forestry*”; Mr. M. Dracea acknowledged this situation when he stated: “We have a borrowed forestry. We took both from the French and the Germans all kinds of theories, but even until now there was no attempt to establish in what extent they can be applied in our forestry, and in what extent they are applicable in the special conditions provided by our country”.

“Our country has now about 8 million hectares of forests and we, the foresters, have responsibilities for the civilized world on how we cultivate and use them”.

“Therefore, we will need to pay a special attention, in our future Romanian science, to the characteristics of forest management in Romania and to the extent the observa-

tions and theories of the foreign researches are applicable”.

The famous forester D. Russescu (1939), even after six years from the establishment of the Forest Research and Management Institute, discarding the borrowing of concepts and theories from other European countries (France and Germany), promoted the creation of a national forestry, suitable to the natural, economical and social conditions in Romania. It was the reason of existing for the above-mentioned institute that was established in 1933.

The borrowing of concepts lead to disastrous results for the Romanian countries.

In the second stage, which lasted until 1948, the first, rather frail foundation was set up for the national scientific forestry. Nevertheless, it was a period for training the research staff; then *the gold team of Romanian scientists* was born, trained at prestigious institutions in France and Germany. Several famous Romanian scientists were educated then, like Constantin Chirita, Ion Popescu-Zeletin, Constantin Georgescu, Grigore Eliescu, Vasile Sabau, Gavrilă Toma, Atanase Haralamb, Dumitru Sburlan, Teodor Balanica, aso. They were the ones having the noble and responsible task to set up the first foundation of the national forest science.

It should not be misunderstood that we undermine the pioneer achievements of the prestigious leaders of the Romanian forestry like Ion Ionescu de la Brad, George Stătescu, Petru Antonescu, Constantin Rolescu, Vlad Carnu-Munteanu, Dumitru Ruscescu, Iuliu Moldovan, etc., as well as the forestation of the moving sands in south of Oltenia - an achievement known worldwide.

In the 50s of the last century, an intense and rapid assertion of the Romanian forest science started at national level and lasted for about two decades, as result of the cooperation between the two generation of foresters: the elder, mentioned above, and the ones trained by the first generation. There were clear signs of acknowledgement at European level of a Romanian forest science, with active participation in international scientific meetings, especially European ones. But, only in the 7th decade of the 20th century, an extraordinary step forward was made when the Romanian forest science, on one hand, acquired a full European recognition, and, on the other hand, started to have a contribution to the development of the European and global forest science. *Therefore, Romania was becoming, from an importer of forestry science, an exporter of products created by the intelligence of the Romanian foresters.*

The following paragraphs will present several arguments that support these statements:

- The Romanian forest science has highly contributed to the scientific knowledge on the European natural forest heritage by: identifying and describing many forest species, subspecies, varieties, forms, ecotypes, forest types, site types, ecosystem types, cover types in the Romanian forests. By describing the main virgin forests in the Romanian forests, Europe discovered that it has a priceless natural heritage in this country, which unfortunately is not appreciated enough and protected at national level;

- The concept of ecopedology, developed and applied in pedology and ecology by C. Chirita has been internationally acknowledged and applied, bringing honor to Romania and prestige to the Romanian forestry science;

- Romanian school of Dendrometry, present in different publications, is acknowledged and included in specific European works, considered to be “unique in the world” (J. Parde, J. Bouchon, 1988), and the high level of the Romanian forest management planning school is recognized at European and world levels:

o Prof. Ion Popescu-Zeletin (1970) was awarded the Wilhelm Leopold Pfeil Prize, when it was stated that “this honor shows how much his works and activity are appreciated abroad too” (R. Magin, 1970).

o The appointment of several Romanian scientists to lead some working groups of the International Union of Forest Research Organization - IUFRO (Ion Popescu-Zeletin, F. Carcea, Val. Enescu, etc.)

Such examples can be continued.

The conclusion is that without the essential contribution of Romanian forestry research in the presented period (1960-1989), whose results were disseminated in publications and in international scientific meetings, the European forestry science would have been incomplete, poorer, lacking scientific information on the forests in an important and unique European area, respectively in the Carpathian-Danube-Black Sea area.

PRESENT AND FUTURE

Of course, there is a need for evaluating, in our paper, the present status of the Romanian scientific research, in relation with European standards. Today’s celebratory meeting saves us from presenting the things that obstruct the progress in this field, especially that we consider the decline of the Romanian forestry science as something temporary, which can be overcome with the support of a rational management originating in the European experience. We should consider the stimulation and promotion of the values according to objective, non-political criteria; reaching a higher stability of the institutional structures and of their management; real independence of research institutions; upgrading the laboratories; protection and rendering efficient the experimental units, inherited from the forefathers (transformation of the forestry district managed by the Forest Research and Management Institute (ICAS) in authentic experimental plots and models for sustainable forest management); acquiring the status of a *national institute* for ICAS, normalization of its relationship with the Academy of Agricultural and Forestry Sciences; invigorating and intensification of the scientific research in higher forest teaching institutions; reintegration of Romanian forest research results with the international environment by invigorating and upgrading the specific scientific publications (including by using Internet and by sending them to international scientometric centers); enhancement of training through PhD processes, etc.

Romanian forest research should be directed mainly towards international partnership, that is cooperation with research institutions from EU countries, respectively towards an advanced research using a highly developed technology, because the “outdated” research by fields with a “worn out” potential - which dominates nowadays - is not stimulating, disliked in Europe and, consequently, does not find financing from

external funds.

The emphasis put by the forest institutions and faculties mainly on studies, on unjustified rerun of previous researches, on works reflecting mainly the aim of administrative institutions (technical standards, impact studies, instructions, technical assistance, etc.) would affect the efforts for integration of the Romanian forest research with the large research projects of EU, would represent the deviation from the aim of the forest research and higher teaching institutions.

The recovery and progress of Romanian forest research can come from our efforts to convince the European decision-makers of our strength to approach the important problems of the Romanian forests and forestry, which are important for the international scientific community too, especially in Europe. We refer, for example, to biodiversity, to the impact of the climate changes, to the harmonization of the Romanian forest and forestry with these possible changes, the biological, geological and chemical cycles, to naturally restoring some areas that are strongly artificial and ecologically unbalanced (like Danube Floodplain, south and south-east of the country, etc.) forest monitoring, sustainable management of forest ecosystems, etc. (MCPFE, 1190, 1993, 1998, 2002). All these factors can contribute to European integration of the Romanian forestry.

We cannot leave out the increasing interest of the European scientific community for the scientific potential of the Romanian forests, characterized by many specific traits:

- Dominance in Romania of natural or natural-type forest ecosystems able to highlight, in researches, the laws of nature, needed in the sustainable management of the cultivated forests. We should use this special feature to establish in Romania an International Research Institute for natural forests, financed from external funds, with the participation of European researchers. Such researches in the natural, virgin ecosystems in Romania will teach European *Homo sapiens* that, in his attempts to dominate the nature, he has to know and observe the laws of nature, which he fought for two centuries;

- the occurrence in Romania of climate change impact, which is obvious in the south and south-east of the country. The same *Homo sapiens* will be able to observe here examples of his disrespect towards nature, examples that, if scientifically used, will be useful for the present and future generations;

- Romania's priority regarding the wildlife heritage, unique in Europe. Through a rational and scientific management it could draw attention of Europe on Romania. We think that Europe needs a center for ecological research on wildlife in Romania, until it is not too late.

The forest vocation of the Romanian youth and the high scientific potential of the Romanian forests represent the guarantee that Romanian forestry science will overcome the present constraints and will be promoted in Europe and the world.

We also do not have the right to ignore that we live in a complex world, with a real insecurity regarding long-term trends. Consequently, the Romanian scientific forest research, integrated with the European research, has to intensify its actions for creating some scientific tools for risk assessment and prevention, in order to stop forestry from going in directions opposite to the laws of nature, before we know how to adjust our-

selves and how much we can deviate from them, when economic and social interests calls for it.

That is why, the risk prevention principle must be integrated with all the forest research fields, as it is more and more required in the European Union countries.

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As a conclusion, we consider the following statement to be true: *As Romanian forestry will be more national, it will be more European*, which reminds us of the appeal of Titu Maiorescu, launched 130 years ago: “...to be national with the face towards the world”.

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