

University of Sopron
Faculty of Forestry

Doctoral (PhD) dissertation thesis

**Opportunities for the Structural Development of Secondary Vocational
Training in Wildlife Management in Line with the Needs of the Labor
Market**

Written by: Gábor BÖGÖTI
Msc. in wildlife management engineering

Sopron
2021

Doctoral School: Roth Gyula Doctoral School of Forestry and
Wildlife Management Sciences

Head of the Doctoral School: Prof. Dr. Sándor FARAGÓ, university professor

Program: Forest Assets Management (E3) program

Head of the program: Prof. Dr. Béla LETT, university professor

Supervisor: Dr. Magdolna STARK, associate professor

1. Definition of the topic

Hungary's wildlife is of world-famous. This is largely due to the varied, excellent habitats and wild genetic material. At the same time, it is important to recognize the value and importance of the work of the experts in charge of wildlife management who have contributed the highest possible standard at all times to protect the unique value of our nation, the Hungarian wildlife and its habitat.

Quality vocational training is essential to ensure that our wildlife management maintains its prestige. We need professionals, gamekeepers who share the human values of our profession, acquire the knowledge of our profession that has accumulated for centuries, and are up-to-date in applying the important results of wildlife research. This can only work in a system the elements of which are properly coordinated through well-designed professional guidelines.

In the last decade and a half, secondary vocational training in wildlife management has been characterized by a drift due to the continuous changes in education policy without discussing it with the professionals. The number of establishments providing the training of forestry and wildlife management technicians has increased steadily. Every year, there are more young professionals coming to the profession without thorough preparation. The profession regularly states in the written and electronic press that there is a lack of gamekeepers with adequate knowledge on the labor market. Teachers and institutions complain about training difficulties and young professional hunters complain about a lack of practical preparation.

In my work I have undertaken to study the development of secondary education in wildlife management based on literature data, to demonstrate the importance of quality training of gamekeepers, to highlight and to address the main problems of secondary vocational training of professional hunters.

My work was complicated by the fact that due to the unique nature of vocational training of wildlife management in Hungary, there is no current literature other than the history of the profession. As a consequence in the structure of my dissertation, I had to rely on my own research, on my previous investigations, thus laying the foundations for future investigations on similar subjects.

2. Objectives

The aim of the research is to examine the quality of the secondary vocational wildlife management education institutions in preparing the students and their consistency with labor market requirements. In the framework literature review, I reveal historical roots and legal framework of the work and training of gamekeepers. I will present the emergence of the profession of professional hunters, highlighting the early recognition of the importance of this particular field.

The aim of my dissertation is to demonstrate and compare how the training of professionals working as professional hunters is realized in our country and in neighboring countries. I survey the number of recently graduated secondary forestry and game management professionals, examining the labor market conditions in Hungary.

With my research I would like to give a current picture of the age conditions of the active professional hunter staff and its changes in the light of the last decade and a half.

I will define the expectations of employers by area of expertise. At the same time, I will assess the opinions of active professional hunters about the standard of preparation of their former school. Summarizing the opinions of the specialized teacher colleagues, I present the educational conditions of forestry and wildlife management vocational schools.

I will examine the practice of dual training abroad and analyze the draft implementation of it in Hungary on the basis of document *Vocational training 4.0*. Based on all this, I develop a model for the implementation of dual vocational training in Hungary in relation to secondary wildlife management training. I point out the connections between the elements of the model and the most important areas of development.

Based on my research, I support with figures the possibility of involving those exercising hunting rights as potential dual partners and active professional hunter staff as potential practical instructors.

My goal is to draw attention to the fact that by coordinating the activity of vocational training schools and the employers, there is a solution to the problems that the field of wildlife management has been fighting for decades.

3. The relevance of the topic

At the start of my research, vocational training policy progressed in a completely different direction than today. I had concerns about the possibilities of changing secondary vocational training in wildlife management, even if my work yields the expected results.

My problem was exacerbated by the fact that, due to the legislative change in 2013, the subject of my research, secondary vocational training in wildlife management virtually ceased to exist independently. However, the years 2019-2020 have brought positive changes in all areas. The Government of Hungary negotiated and adopted by the *Government decision no. 1168/2019. (III.28.) the Vocational training 4.0 - Medium-Term Policy Strategy for the Renewal of Vocational Training and Adult Education*.

The new legislative environment has provided the right environment to complete my work. I am particularly pleased that my proposals to improve secondary vocational education in 2010 are in line with the ideas of the new strategy for secondary vocational training at the most important points. The updated conclusions of my dissertation can thus provide real help, in particular, to provide effective and targeted dual training, ensuring the future of the training for professional hunters.

4. Research hypotheses

- 1) The need to teach wildlife management and hunting skills was recognized early. Hunting vocational education was strengthened under the auspices of forestry education and soon became independent.
- 2) Secondary vocational wildlife management training in Hungary is unique, based on the number of vocational training establishments, the duration of vocational training and the high number of professional courses.
- 3) Despite considerable overtraining in secondary vocational wildlife management education, those exercising hunting rights find it difficult to find professionals of sufficient quality and quantity.
- 4) The merger of secondary vocational training in forestry and wildlife management in 2013 had a negative impact on the professional content of secondary vocational education in wildlife management. Wildlife management specialization in forestry technician training introduced in 2020 provides the theoretical and practical education related to the subjects of wildlife management and hunting in the highest number of courses compared to the previous framework curricula.
- 5) The vocational skills of young workers coming out of the establishments of secondary vocational training in wildlife management do not meet the current requirements of employers, and the educational conditions of vocational training need to be improved.

- 6) Those exercising hunting rights, as employers and active professional hunters could be involved in secondary vocational training in wildlife management.

5. Methods of research

My doctoral thesis is based on both primary and secondary research. I considered it my priority to show the development of the profession of gamekeeper. I tried to explore the cornerstones of this long journey that make it clear to all readers the professional importance of professional hunter training. I used analytical resource research in this area. My aim was to recall and logically frame the important thoughts, ideas that came from our predecessors who were once famous at the beginning of formal education, and which, in my opinion, are still valid to this day.

In addition to the historical roots and the development of forestry and hunting education, I have tried to explore the development of the training conditions of the 20 century. I will show how the forest and wildlife management schools, considered to be historical, have started to operate in chronological order and which still strive to teach future generations at the highest possible level.

A fundamental element of my primary research was the collection of data to highlight the current problems of secondary vocational education and training in wildlife management. I have chosen a quantitative research method because I have had to collect data in a wide range of disciplines to get an answer to my research questions. In my questionnaires, I used the Likert scale to determine the importance of each field of expertise.

I made reports to formulate the right questions. For a thorough study of the dual vocational training system, I participated in an Erasmus study trip in Germany.

In order to examine the forestry and wildlife management vocational training in neighboring countries, I have contacted national hunting associations and recognized wildlife management professional colleagues working in practice.

6. Areas and methods of sampling

After the source analysis, as the first step of my research work, I identified the factors that in the present determine and in the future may mostly determine the training of professional hunters.

Education policy at all times can have the greatest impact on the direction and quality of vocational training through framework curricula. Of the many features of the curriculum, I

feel the most important is the extent to which the expectations and the structure of education ensure the institutions that with the care of teachers and specialized teachers, young professionals shall graduate whose basic knowledge and competences are suited to the expectations of the profession and employers as best as possible. In my work, I will address the changes in the legislation defining framework curricula so far and its impact in professional policy. I have made a comparative study on the framework curricula.

The best indicators of the quality of training are the active professional hunters who have left school education, working in the profession. When they start to work, they are immediately faced with the extent to which the knowledge given over school years is sufficient to carry out their work in accordance with the professional and employer expectations of the age. Their opinions are important in many respects. On the one hand, as a practicing professional, they are able to evaluate the quality of vocational training in which they have previously been involved, and on the other hand, they know what constitutes the highest level of preparation for the next generations.

The Hungarian Hunters' National Chamber (OMVK) helped me to reach active professional hunter colleagues. The hunters' chamber keeps an up-to-date database of professional hunters on duty. At the beginning of my study, Mr. Péter BAJDIK, the Secretary-General of the Hungarian Hunters' National Chamber, Mr. Vilmos FODERMAYER, professional hunter Vice-President, and Mr. Andor BERGER, the Secretary of the Expert Committee for Education helped me. In order to protect personal data, I obtained the number and year of birth of actively working professional hunter colleagues from the national database. This way exact age of the colleagues could be calculated from the year of birth. As it turned out and at the same time it was enlightening that unfortunately there is no useful information in the database about the exact qualifications of the gamekeepers and the institution issuing their certificate.

Hunters' county chambers sent my online questionnaire to the email address of the colleagues in the database. The first questionnaire filled in was received on 18 December 2018 and the last on 31 March 2019. 298 out of the 2990 professional hunters working actively responded to my questions. This represents almost 10% (9.96%) of Hungary's gamekeepers. In my research, I used the TÁRKI survey prepared in 2006 at the request of OMVK, in which the answers of 1105 professional hunters were summarized.

Wildlife protection, wildlife management and hunting activities are carried out within the framework of those exercising hunting rights. In Hungary, according to the National Game Management Database (OVA), currently there are 1440 hunting right owners until 2037. They are the employers' group. They also impose requirements on the professional hunters who are employed, including those who are beginners. As they face the quantitative

and qualitative aspects of labor supply, it would be legitimate expectation that on one hand, they shall be able to assess the weight of the individual professional content to be taught, and on the other hand, in the professional gamekeeper training, they may provide the acquisition of practical knowledge with daily tasks in addition the theoretical education ensured by vocational training schools.

Mr. Peter ZÁMBÓ, State Secretary helped me a lot in my work. With his contribution, the Department of Hunting and Game Management of the Ministry of Agriculture helped to send my online questionnaire to the managers of hunting right holders through the regional hunting management advisors. 173 out of 1440 hunting right holders- supported my work with their responses. This figure represents 12.35 percent of the total number of employers. The first questionnaire filled in was received on 1 March 2019 and the last on 3 May 2019.

A large number of institutions are involved in secondary education of wildlife management. Reaching historical forestry and hunting schools was an easy task, as I have regular contacts with the majority of them. The number of institutions that have recently started the training of forestry, and wildlife management technicians and institutions in adult education were not easy to identify. Depending on the number of candidates, each institution and company launches courses at random intervals. No public body was able to provide a specific database. I have chosen a different solution to identify potential training places. The certification exam of the technicians clearly requires a written request of exam questions. This task has been carried out by the Herman Otto Institute since 2014. The number of educational establishments can be identified on the basis of the requests of exam questions, and even the number of graduates can be defined, too.

I contacted the institutions found with my questions. As a result, I had a detailed view of the training conditions of ten public schools, including all the historical forestry and wildlife management institutions. Of the adult education companies, only one answered. Unfortunately, I could not take into account the questionnaire filled in by that company due to the lack of data. I received detailed answers in my questionnaire from 22 colleagues from the ten schools of vocational training who teaches hunting, wildlife management subjects, which gave me the opportunity to get an overview of the vocational training situation in schools and the necessary professional opinion of colleagues. Replies were received from the following institutions according to their place of establishment: Ásotthalom, Barcs, Csongrád, Hajdúböszörmény, Mátrafüred, Pápa, Sopron, Szeged, Szombathely, and Szócsénypuszta.

7. Results

7.1st Results of historical research (secondary research)

In the history of Hungarians, hunting has always been of great importance. In Hungary, from 1729, hunting appeared as a branch and the need for school-based vocational training evolved during this period in the field of forestry and hunting. In the 19th century, for the teaching of both professions, the Forest and Hunting School started to operate. In parallel with the forest guard training, having a greater importance from the point of view of the economy, the teaching of hunting-related skills is constantly present. A few decades after the strengthening of forestry training, hunting education also became a separate field as its importance was recognized. The separation of the two professions can be dated from 1893.

7.2nd Results of the study of secondary wildlife management (primary research)

Until 2006, the education of the profession, raised to the level of a technician, took place in a balanced way in some institutions where the training conditions were suitable for quality education. From 2006, vocational training was characterized by a drift, and this affected the training in forestry and wildlife management, too. In the last seven years, secondary wildlife management specialists have been taught on the basis of four different framework curricula and program curriculum. My study shows that there has been no significant number of surveys or professional consultations between the industry and education actors to draw up the framework curricula. In 2013, the education of forestry and wildlife management technicians was merged in order to reduce the National Qualification Register (OKJ) numbers, which clearly led to a reduction in the vocational content of the two courses, thus reducing the quality of vocational training in the sector. The forestry technician program curriculum, issued in 2020, has brought the highest number of professional courses in recent decades. It can be stated that the framework curricula of training can provide a high level in the training in secondary vocational wildlife management specialists. At the same time, however, it would be important to separate the training of forestry technicians and wildlife management technicians, since the current name of the qualification is misleading for both the employers and for those taking up further education. The study shows that only 18% of respondent colleagues employed as professional hunters are in employed with a forestry technician qualification. More than 60% of the gamekeeper colleagues who participated in the research have hunter and game breeder and wildlife management technician qualification.

Comparing the training conditions in Hungary with the secondary vocational training in wildlife management in the neighboring countries and Germany, it is clear that the teaching

of the profession of professional hunters takes place in the highest number of courses, with the longest training period and in the highest number of institutions in Hungary.

In my study, I have identified serious problems in connection with vocational training establishments. The feedback from professional hunters working in the sector and from the needs of those exercising hunting rights clearly show that the educational level of vocational training schools needs to be improved even in the case of historical establishments, as in most cases they do not meet the expectations of employers.

The most serious problems arise in terms of practical education, which, without improvement, could constitute a barrier to effective dual vocational training. It is clear from my research that the potential of those exercising hunting rights has not been exploited. At the same time, the knowledge of experienced professional hunters working in practice is not exploited for the future of vocational training.

I have shown that despite significant over-training, 77.5% of those exercising hunting rights have difficulty finding a specialist with adequate theoretical and practical knowledge for the vacancies. The reasons for this come from two sources. One is that the wages offered by economic operators are low. The other reason is that, according to the research, students enrolling in vocational schools are becoming less and less committed. They are becoming increasingly characterized by career loss and lack of motivation. According to the specialized teacher colleagues, only one third of the students who have been enrolled are suitable for working as a professional hunter.

In parallel with the reduction of practical opportunities for vocational training schools, the research reveals that a large proportion of those exercising hunting rights and active professional hunters can be involved in vocational training. The realization of this intention is facilitated by the latest legal environment that has introduced dual vocational training.

My research shows that in the sample under investigation, there are a significant number of those exercising hunting rights and professional hunters who can and are willing to receive students for educational purposes. I identified 93 potential dual training sites and 189 potential practical instructor who would be willing to participate in the education of the next generation of gamekeepers.

On the basis of the *Vocational training 4.0 Strategy*, I have drawn up a model of dual-secondary education in my work, and I have described in detail the relationship between the elements of the model and the areas of development.

8. Thesis

- 1) Based on the analysis of the history of the profession, I discovered that the development of hunting professionals dates back to the Middle Ages. Both professions were included in the first real vocational school, known as the "Forest and Hunting School". Later on, hunting studies were constantly present and strengthened from decade to decade in the training of forest guards. Ten years after the establishment of the first secondary forestry school, in 1893, the training professional hunters was separated by organizing courses for gamekeepers.
- 2) By assessing and examining the secondary wildlife management training in neighboring countries and Germany, I found that secondary vocational education in Hungary is unique in terms of the number of institutions, the duration of training and the number of professional courses.
- 3) On the basis of a survey carried out among professional hunters and those exercising hunting rights, I have shown that 61.1% of the gamekeeper posts is filled by workers with wildlife management technician and hunter and game breeder qualification. These professionals are currently trained by 16 institutions. With my research, I have confirmed that based on the opinion of 77.5 percent of potential employers, despite significant overtraining, it is clearly difficult to find a professional hunter in the labor market with adequate professional theoretical and practical knowledge. According to the opinion of the active gamekeepers, in addition to low wages, the two main reasons for leaving the profession are professional incompetence and lack of sense of vocation.
- 4) I found that between 2006 and 2020, the training of specialists with secondary vocational qualification in wildlife management took place and takes place on the basis of five (four in the last seven years) different framework curricula. By the comparative analysis of the framework curricula and the program curricula, I demonstrated that the number of professional courses related to wildlife management decreased significantly in the combined forestry and wildlife management technician training introduced in 2013, which can be considered as the reason for the lack of professional knowledge required by the practice. I have shown that the wildlife management technician specialization of forestry technician training, introduced in 2020, enables the teaching of professional subjects directly related to wildlife management in the highest proportion among the examined framework curricula, which greatly contributes to achieving a higher level of professional competence and the development of the sense of vocation.

- 5) On the basis of the responses received from the active professional hunters and those exercising hunting rights participating in the survey, I have revealed that in the vast majority of areas of expertise, there is a significant difference between the skills of young people graduating in educational institutions and the expectations of employers, which makes it necessary to raise the level of training in educational institutions.
- 6) With the questionnaire-based survey, I identified 93 potential dual partners who would be willing to participate in the practical training of professional hunters and who meet the expectations based on both their skills and their ability to pay wages. I found that 118 active professionals would be willing to participate in the practical training of gamekeeper students, even after completing a short pedagogical course, without receiving an extra salary for this.
- 7) On the basis of the *Vocational training 4.0* strategy, I have drawn up a model for dual vocational training in the secondary vocational training in wildlife management.

9. Recommendations

Training and education of professionals with excellent theoretical and practical knowledge is the most important thing to maintain the world-famous wildlife in Hungary and to maintain the success of the sector. The key to this is a well thought-out and well-coordinated system, the elements of which together ensure all this. Although *the "Vocational training 4.0"* strategy document outlines an effective educational environment, it is necessary to take into account the specificities of each sector and to coordinate the actors in the sector.

The heart of the system is the school itself. There is a need for institutions that meet all the conditions for quality specialists. The implementation of the *"21-century School"* and the development of workshops are necessary. The educational conditions of the institutions dealing with secondary vocational training in forestry and wildlife management need to be clearly improved.

In order to prevent the clear overtraining currently observed, schools should be qualified on the basis of their past in vocational training, their results, material and personal conditions. Historical forest and wildlife management schools meet the expectations the most. Overtraining is also economically inefficient from the point of view of public resources. It is necessary to define the range of institutions which may enroll students in this field.

The training of forestry technicians and wildlife management technicians should be separated again. After a joint two-year sectoral foundation, students would also have the opportunity to choose between the two professions or any agricultural specialization. The term forestry technician, even though it includes a forestry or wildlife management specialization, is extremely misleading for children who want to continue their education, and also for their parents and even for employers.

The spirit of vocational training schools is ensured by trained and dedicated specialized teachers. They are the ones who, even when the training conditions are deteriorated, are trying to raise a good professional, including through the involvement of their own tools and professional relations. Their moral, material appreciation and professional further education are essential to future vocational training. The new vocational training system has changed the legal status of teachers working in vocational training. Their new name is instructor, and their wage-setting process started in 2020 with an increase in salaries. However, it is important to preserve wage competitiveness. In addition, further training of instructors should be a priority in the future. Accredited courses should be provided to allow colleagues to keep up-to-date with professional changes in the sector. In this task, the Herman Otto Institute could play a major role, which has already provided the teaching staff with a one-day further training each year. Another alternative could be the Hungarian Hunters'

National Chamber, whose county organizations organize mandatory further training courses for the active professional hunter staff twice a year. In case of 19 counties of Hungary, this could provide 38 opportunities for teachers to get up-to-date knowledge every year. In the future, the institutions should be responsible for developing the digital competence of specialized teachers in order to meet the modern needs of vocational training.

In addition to the full-time teacher colleagues, it is clearly important to include recognized practitioners and active professional hunters in vocational training who, with their decades of experience, make a major contribution to improving the quality of education through their research.

I have identified the main deficiencies in the field of practical training. With the introduction of a dual education system, it is an urgent matter to restructure wildlife management education. Although it has become clear in my research that there are a large number of people among those exercising hunting rights and active professional hunters who are willing to participate in the training of gamekeeper students, further investigation is needed to develop the details. All potential dual partners shall be identified in the country. An assessment system should be established to qualify those exercising hunting rights if material and personal conditions meet the criteria needed for professional training.

At the same time, the use of professional hunters in education requires the development of a pedagogical course enabling colleagues working in practical training to fully meet teaching and educational needs.

The implementation and maintenance of dual vocational training requires great organizational work. It needs to be determined which organization will bring together the career guidance processes, the qualification of the dual partners, the training of external professionals and, of course, the educational work of the vocational training institutions.

In my further research, I would like to look at how the new vocational training guidelines are implemented in wildlife management vocational training. I would like to measure how the competences of students in dual training are improved thanks to the work of professional hunters working in practice. I would like to explore the extent to which, as a result of the new vocational training system, the preparedness of gamekeeper students is approaching the expectations of the employers in the 21st century. I would like to be the initiator of the development of a program aimed at developing the pedagogical competencies of professional hunters working in practice and being able to properly transfer their professional knowledge to young people preparing for a career as a gamekeeper.

10. The author's publications related to the topic of the dissertation

Publications in peer-reviewed journals and books

1. BÖGÖTI, G. (2010.): A középfokú vadgazdálkodási szakképzés helyzetének vizsgálata és minőségi fejlesztésének koncepciója. Diploma work, Sopron 2010.
2. BÖGÖTI, G. (2017.): Az online egyéni vadászati napló alkalmazásának lehetőségei. *In: LETT, B. – GÁL, J. – HORVÁTH, S. – MOLNÁR, K. – SCHIBERNA, E. – STARK, M. (ed.) Tanulmánykötet Mészáros Károly tiszteletére 2017. Soproni Egyetem Kiadó, Sopron: ISSN: 2631-1534 : p. 43-48.*
3. BÖGÖTI, G. (2018.): A középfokú vadgazdálkodási szakképzés hatékonyságát segítő módszerek és azok eredményei a Herman Ottó Szakgimnáziumban. *In: LETT, B. – GÁL, J. – HORVÁTH, S. – MOLNÁR, K. – SCHIBERNA, E. – STARK, M. (ed.) Tanulmánykötet Mészáros Károly tiszteletére 2019. Soproni Egyetem Kiadó, Sopron: ISSN: 2631-1534 : p. 53-58.*
4. BÖGÖTI, G. (2019.): A duális szakképzés lehetőségei a középfokú vadgazdálkodási szakképzésben. *In: LETT, B. – GÁL, J. – HORVÁTH, S. – MOLNÁR, K. – SCHIBERNA, E. – STARK, M. (ed.) Tanulmánykötet Mészáros Károly tiszteletére 2019. Soproni Egyetem Kiadó, Sopron : ISSN: 2631-1534 : p. 103-109*
5. BÖGÖTI G. (2018): Vas megye. *In: FÁCZÁNYI Ö. (szerk.) Fejet hajtunk II. Vadászati emlékhelyek Magyarországon. pp.141-145. ISBN: 978-963-89493-4-9*
6. BÖGÖTI G. (2023): The relations between secondary vocational wildlife management training and the labour market in the dual education system. *Journal of Applied Technical and Educational Sciences, ISSN 2560-5429: Vol. 13, No. 1, p. 1-21.*

Publications in not peer-reviewed journals

1. BÖGÖTI, G. (2011.): Egy régi iskola új lehetőségei. *In: Vasi Vadász, OMVK Vas megyei területi szervezetének lapja 2011.XII.sz. Pp. 7.*
2. BÖGÖTI, G. (2012.): Változások a vadgazdálkodási oktatásban. *In: Vasi Vadász, OMVK Vas megyei területi szervezetének lapja 2012.XII.sz. Pp. 9.*
3. BÖGÖTI, G. (2013.): A szakképzés jövője. *In: Vasi Vadász, OMVK Vas megyei területi szervezetének lapja 2012.VIII.sz. Pp. 8.*
4. BÖGÖTI, G. (2013.): Alapítvány az erdészeti és vadgazdálkodási képzésért. *In: Vasi Vadász, OMVK Vas megyei területi szervezetének lapja 2013.XII.sz. Pp. 6.*

5. BÖGÖTI, G. (2014.): Alpokaljai Vadászati Közösség Vadásztársasága. *In: Vasi Vadász, OMVK Vas megyei területi szerveztének lapja 2014.XII. Pp. 9.*
6. BÖGÖTI, G. (2021.): Hivatásosvadász- képzés: helyzet és jövőkép. *In: Az Országos Magyar Vadászkamara Nimród hírlevele 2021.VII.sz. Pp. 76-79.*