

Csaba Zsigmond

**International criminal organisations involved in illegal trade in protected
species of fauna and flora**

theses of the doctoral thesis

Supervisor

Dr. Péter Polt

Head of Department, Professor

2023

Content

- 1. Introduction..... 3
- 2. Conceptual definitions (conceptualisation) 4
- 3. Hypotheses of the thesis 6
- 4. Research objectives..... 6
- 5. Methodology 7
 - 5.1. Database search 7
 - 5.2. Researching criminal records 7
- 6. Review of the relevant literature 9
- 7. Research carried out in brief by chapter 11
- 8. Conclusions..... 15
- 9. New scientific results..... 16
 - 9.1. Recent illegal international trade trends in the EU 16
 - 9.2. Hungary is also involved in the international illegal trade in animals and plants affecting Hungary 17
 - 9.3. The concept of criminal organisation in the Hungarian Criminal Code does not apply to several organised criminal groups that qualify as organised criminal groups under the Palermo Convention 19
 - 9.4. Lack of international exchange of information between investigating authorities in international criminal cases 19
 - 9.5. In our country, international corporate criminal groups and unorganised networks are involved in illegal trade in wildlife species 20
- 10. Recommendations..... 22
- 11. Practical use of research results..... 24
- List of literature used for the thesis 25
- The doctoral candidate's publications 26
- Biography of the doctoral candidate..... 27

"...You know well, my sweet nation, that you can keep your country only at the cost of intelligence and diligence; that you can make up for your smallness in numbers only by the training of your wits; that you must approach the mother of us all, nature, with understanding love, which educates and guides you with its creative but also destructive power, so that you may find your own bread and that of your servants, your happiness in the land of your country..."

Ottó Hermann: The benefits and harms of birds

1. Introduction

Formulating the scientific problem

These lines are all the more relevant in the second decade of the 21st century, when human civilisation has exposed our natural environment to massive destruction, resulting in a significant loss of natural habitats over the last decades, with some 26500 species of animals and plants threatened with extinction according to the IUCN Red List. The causes of this mass extinction are the significant loss of natural habitats and the legal and illegal trade in wild species.

My thesis focuses on the relationship between international illegal wildlife trade and organised crime. The illegal trade in protected species of animals and plants on a global scale poses a serious threat to biodiversity (Rosen & Smith, 2010a), the significant degradation of which could lead to the total destruction of the human environment. This activity is global and poses serious threats. For decades, international communities and international organisations (UNODC, Interpol, Europol, EU) have been drawing attention to the fact that wildlife crime, in addition to endangering biodiversity, contributes to climate change, threatens human health, and can affect the economies and national security of some countries (Pádár et al., 2022). Moreover, the criminals involved stand to make huge profits.

Recognising the potential for great financial gain in this global form of crime, transnational organised crime is becoming increasingly involved (Interpol 2019, UNODC 2020), which further increases its dangerousness. In addition to the above, it can also cause enormous damage to the global economy, as it can be linked to serious crimes such as bribery (Wyatt, 2015, D. P. van Uhm & Moreto, 2017), money laundering (Viollaz et al., 2018), which can significantly undermine the stability of some states (Wyatt 2013).

Illegal trade in animals and plants could not exist without demand. Protected animals and plants are sought for various purposes around the world:

- hobby animals, food, ornaments, clothing made from the fur of certain animals, for medicinal and food purposes.

Demand has grown with humanity, and this has led to the extinction or severe endangerment of some animal and plant species. In addition to causing the extinction of some species, recent research has shown that illegal hunting and trade also poses a serious threat to human health. Research conducted by the UN Environment Programme has shown that 70% of infectious diseases are zoonotic, meaning that they are spread from animal to human (UNODC 2020). Illegal animal trade lacks any animal health controls and can therefore cause pandemic outbreaks. It is currently not proven that the pandemic COVID 19 virus has been transmitted from animals to humans, but it is a fact that the virus first appeared in the animal market.

With the above in mind, the fight against these crimes should be a high priority for both international and nation states, and research and analysis of these crimes should be a priority for society. This is one of the reasons why I chose this specific field as the subject of my thesis.

In the thesis, special attention is given to the relationship between illegal international trade in protected species of animals and plants and organised crime. The structure and functioning of organised criminal groups involved in this activity, as well as other related crimes. I will also examine the extent to which these organised criminal groups comply with the Palermo Convention's definition of organised criminal groups and the international nature of organised crime in Hungary, as well as the definition of criminal organisation in Hungarian criminal law.

2. Conceptual definitions (conceptualisation)

The terms used in the title of this thesis and in the thesis itself can be interpreted as follows:

"Organised criminal groups" is a generic term within the meaning of Article 2(a) of the Act CI of 2006 on the proclamation of the Convention against Transnational Organised Crime (hereinafter referred to as the "Palermo Convention"), adopted at the United Nations in Palermo on 14 December 2000.

„Organized criminal group” shall mean a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences established in accordance with this Convention, in order to obtain, directly or indirectly, a financial or other material benefit”

The "international character" also refers to the criminal matters covered by the Palermo Convention. Under Article 3(2) of the Palermo Convention, a case is international in character if

„a) It is committed in more than one State;

(b) It is committed in one State but a substantial part of its preparation, planning, direction or control takes place in another State;

(c) It is committed in one State but involves an organized criminal group that engages in criminal activities in more than one State; or

(d) It is committed in one State but has substantial effects in another State”.

Illegal inter-national trade in protected species of fauna and flora: as I have described, the international literature on this subject, in English, is quite extensive: sources use the terms "wildlife trafficking", "wildlife trading" and "wildlife crime".

In the very limited domestic literature, there are few definitions of this offence, typically using the definition of nature damage in Article 241(1) of the Criminal Code. There is a domestic publication that uses the definition of "wildlife criminal acts" for this phenomenon (Sziebig 2021).

For the definition I use, I have taken into account the common elements of the different definitions: i.e. illegal trade in protected species of animals and plants means any activity that is related to any protected species of animals and plants under any international or national legislation, such as poaching, trade, possession, transport, smuggling and sale.

3. Hypotheses of the thesis

1. Analysis of seizure data reveals new trends in the illegal trade in protected animal and plant species in the European Union that show signs of organisation.
2. Hungary is also involved in the illegal trade in animals and plants by international organised criminal groups.
3. The current Hungarian definition of criminal organisation is much narrower than the international conventions, and therefore does not apply to the group practices identified in the research
4. International exchange of information in Hungarian cases is not common and foreign links are not detected
5. In Hungary, it is not the so-called classic hierarchical criminal organisations that are typically involved in the international illegal trade in protected species, but rather corporate criminal groups and so-called unorganised networks.
6. International illegal trade in protected animals and plants involving Hungary is not linked to other organised crime offences which, according to international research, are globally typical

4. Research objectives

- a) To understand the characteristics and trends of illegal international trade in protected species of animals and plants,
- b) To understand the structure and functioning of organised criminal groups involved in the illegal trade in protected species of fauna and flora,
- (c) to learn about other serious crimes linked to illegal trade in protected species of fauna and flora,
- (d) to learn about the involvement of our country in the international illegal trade in animals and plants,
- (e) whether the group of offences involving our country corresponds to the definition of organised criminal groups as set out in the Palermo Convention,
- (f) the extent to which the concept of criminal organisation in Hungarian criminal law differs dogmatically from the concept of organised criminal group in the Palermo Convention,
- g) to what extent is the exchange of information between countries typical in domestic investigations into illegal trade in protected species of fauna and flora of an international nature?

5. Methodology

5.1. Database search

To test the hypothesis, I conducted a search on the website www.wildlifetradeportal.com between the years 2015-2021. [Wildlifetradeportal.com](http://www.wildlifetradeportal.com) is an open source database operated by TRAFFIC (NGO). The database is based on publicly available information (news published in the media in English). It should be stressed that the data is not exhaustive, as not all countries' law enforcement agencies and not all seizures are published. Furthermore, some experts estimate that the actual number of seizures in the illegal wildlife trade would be around 10% of the actual amount of goods smuggled (Stiles et al., 2013). Nevertheless, the recurrent nature of seizures (10 or more seizures of the same species in the same countries) of protected animal or plant goods indicates the existence of different trends that point to new avenues of investigation and also to the attention of the competent authorities.

5.2. Researching criminal records

For the file research, I first requested statistical data and statements (case numbers) from the National Tax and Customs Office (NAV) and the Criminal Evaluation and Analysis Department of the National Police Headquarters (ORFK) for the period 2015-2021. In the data request, I asked for data on seizures of protected species for the NAV, while for the ORFK I asked for data on pending criminal cases of suspected nature damage (in violation of Section 242 (1) (a) and (b) of the Criminal Code), broken down by county, based on the ENYÜBS¹ data. Based on the statistical data obtained, I have drawn conclusions on various recurrent phenomena.

The table sent as an annex to the National Tax and Customs Office's response already identified several trends and international smuggling routes, which pointed to further research directions in terms of literature, desk research and interviews to be conducted.

The seizure data show that

- snowdrops protected by the CITES Convention or other plants protected by domestic legislation are typically smuggled into the country at the Hungarian-Ukrainian border.
- in the Hungarian-Romanian border, birds protected by Hungarian legislation are smuggled.

¹ Criminal Justice and Prosecution Statistics

- at Liszt Ferenc International Airport, medicinal preparations containing mainly protected plants are imported into the country.

In the period under investigation, the investigating authorities of the police closed investigations into a total of 769 cases of suspected criminal offences of nature damage at national level, of which 570 cases of offences under Section 242 (1) (a) and 199 cases of offences under Section 242 (1) (b) of the Criminal Code.

This represents a total of 383 ordered criminal cases in the period 2014-2021. This figure is out of line with the norm because in some cases, more than one offence was recorded in the statistics. In cases where, for example, more than one protected individual is seized or more than one offender is involved, this means more than one offence of the same order in a single case, the regularity being determined by the number of individuals or offenders.

It should also be noted that ENYÜBS is a follow-up statistical system, i.e. data on individual cases are only entered into the system from investigating authorities when a particular investigating authority has closed an investigation, which may be an indictment or one of the reasons for the termination of an investigation listed in the Criminal Procedure Act. This means that if a case was entered into the statistic in a given reference year, it may have arisen years earlier.

The ORFK also provided tables listing 383 specific cases. On the basis of the response I received, I ran through the 383 crime cases, further analysing them and narrowing down the number of cases relevant to the research. I selected only those cases which were truly "international in character" as defined in the Convention and which indicated an organised or group offence.

These aspects are described below ²:

- The goods originated from abroad, the animal or plant seized from a company as the object of the offence, or a derivative thereof, and the goods were ordered online,
- The offence was committed by importing, exporting or transiting and the quantity was commercial,

² I have excluded from further scrutiny, for example, someone who imported 1 live parrot as a private individual by road, or a coral by air as a passenger

- The goods were seized domestically and were of foreign origin and the quantity was commercial (which may indicate the existence of an international supply chain, i.e. committed by more than one person).

Based on the above screening, the following distribution of previously pending criminal cases was found in the following investigative authorities. These cases have been subject to detailed analysis.

Airport Police Directorate 70 criminal cases

Csongrád-Csanád County Police Headquarters 3 criminal cases

Szabolcs Szatmár County Police Headquarters 35 criminal cases

Zala County Police Headquarters 2 criminal cases

5.3. Semi-structured expert interviews

The main focus of the interviews was on international trade involving Hungary (destination, transit or source country) and the organisation issues that arise in this context.

The primary criterion for the selection of the subjects was that the selected subject should have adequate knowledge of each of the hypotheses of the thesis.

Expert interviews were conducted accordingly:

- Head of the Environmental Crime Unit of the Priority Cases Division of the Corruption and Economic Crime Department of the Police National Bureau of Investigation (KR NNI),
- Head of Biodiversity and Conservation Department, Ministry of Agriculture,
- Staff of the Airport Directorate of the National Tax and Customs Office (NAV),
- The MILVUS Bird Conservation Foundation in Romania.

6. Review of the relevant literature

The research topic I have chosen is a very specific one in Hungary: Even in the larger category of "environmental crimes" there are not many publications in Hungary (5660), in the smaller category of "crimes against nature" there are fewer (3550), while the even smaller category of crimes against nature is "nature damage" (199), and the category of "nature damage to protected

animal and plant species" was the most restricted category in the "googlescholar" search, with a total of 63 publications in Hungarian (1. Figure 1).

Organised crime produced a total of 7860 publications, whereas if I entered the keywords "organised crime" and "environmental crime" in the search box, the system returned only 27 publications, and the search box returned the narrowest range of publications based on the search "organised crime" for "protected species", with a total of 12 publications.

This shows that there is a very limited literature available to domestic researchers not only on the subject of damage to protected species, but also on organised crime. Thus, this topic is still a very under-researched area in our country.

The international literature (in English) is much richer. In English, the term "wildlife crime" is used to describe crimes of damage to protected species (which is the narrowest term in our country). A total of 121,000 results were found for these two words, ranging from articles based on scientific research to books, book chapters, reports by official international organisations (UN, UNODC, EUROPOL, etc.) or even reports by major international NGOs, often containing the results of research they fund (TRAFFIC, Environment Intelligence Agency, etc.).

The very large number of publications published can be narrowed down by searching for international illegal trafficking of protected species by entering the words "international illegal wildlife trafficking", but even so, the system has produced a very large number of 24,000 hits.

Figure 1: Publications on environmental crime in Hungarian, narrowed down to crimes against protected species



To filter the very large number of publications in English, I had to include several other keywords, which allowed me to narrow down the literature data set significantly and filter out the publications relevant to me. In the international literature screening, I searched the Google Scholar system using additional keywords, according to the individual chapters of the thesis, and selected the relevant literature that served as the basis for the research and the writing of the thesis.

7. Research carried out in brief by chapter

In Chapter 6 of the thesis, "The legal and institutional framework for the protection of wild fauna and flora at international and domestic level", I outline the development and evolution of certain regulations for the protection of the environment and nature as part of national and international legislation, with the help of relevant international and domestic literature. International conventions for the protection of nature emerged at the beginning of the 20th century and have evolved over the century. In addition to the history of the international development of regulation, the international conferences held on the subject will be discussed in chronological order.

In the same chapter, I will discuss the development of criminal law ensuring the protection of nature in Hungary, and I will thoroughly analyse the relevant provisions of the Criminal Code and the related case law on the basis of some typical criminal court decisions. I will then present the institutions and investigative authorities (Police, National Tax and Custom Office) responsible for the criminal protection of nature and their tasks.

As with the history of international regulation, I will also describe some of the major international organisations (intergovernmental and non-governmental) for the protection of nature and their means of action.

In Chapter 7 of the thesis, "From the theoretical approaches to organised crime to the international and domestic legal concept of criminal organisation", I examine the definitions of organised crime in the international literature and some of the characteristics of organised crime. There have been several extensive and thorough international studies on the subject, all of which have examined the structure, operation, activities, crimes committed, the size of the group, its area of operation, time, influence on politics, use of violence, involvement in the legal economy, and their interrelationships.

In the same way, I examine the international legal concepts of organised criminal groups as an exact legal definition.

In addition, I analyse the major domestic criminological theories and definitions of organised crime, as well as the concept of criminal organisation in the current Hungarian Criminal Code. Finally, the chapter concludes with a detailed analysis of the extent to which the current Hungarian concept of criminal organisation can be applied to certain organised groups, as identified by international and domestic criminological research.

Chapter 8 of the thesis, "Seizure trends globally and in the EU", examines seizure data and trends in seizures of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) protected species at the global level, and separately seizure data and trends in illegal imports into the European Union and illegal exports from the European Union to other countries. The analysis of seizure data on illegal wildlife trade provides important information on import and export countries and gives a deeper insight into the understanding of this phenomenon. For this research I used data from the www.wildlifetradeportal.com database.

In chapter 9, "International organized criminal groups in the illegal wildlife trade", I examine the structure and operation of criminal organizations by analyzing international literature (research, reports of international organizations) and presenting specific cases.

In the illegal trade in animals and plants, which crosses borders and often continents, solitary perpetration is less common, as there is a long distance from the source country to the end user, both geographically and in terms of division of labour, which requires the establishment of a chain of people (supply chain), and thus group perpetration is most common. These groups do not always reach the Palermo Convention's definition of an international organised criminal group.

Wyatt and colleagues have researched the types of criminal groups involved in the illegal wildlife trade, the results of which were most recently described in a publication published in 2020 (Wyatt et al., 2020a). According to the publication, there are three main types of criminal groups involved in the illegal wildlife trade:

The first category is the so-called organised criminal group, which clearly corresponds to the Palermo Convention concept of organised criminal group in terms of its structure and functioning. In all cases, these groups are characterised by a high degree of organisation (division of labour), links with other criminal activities, corrupt links with different levels of state officials and a varying degree of opportunism to commit wildlife crime. The second category is the so-called corporate crime groups, in which crimes are committed within the framework of a legally operating company registered in a country (Wyatt and Davies Forthcoming 2020). These groups are also organised (the company itself provides the framework) and have a variable characteristic of opportunism and exploitation of corrupt links, and never of links with other crimes. In this category, the extent to which they fit the definition of an organised criminal group may vary. The third category is a set of loose networks that do not exhibit organisation, but always exhibit opportunism and links to other crimes, and occasionally use corruption (Wyatt et al., 2020a).

In Chapter 10, "International illicit trade in animals and plants and other offences related to organised crime", I analyse the international literature on related offences.

According to the literature, international illegal trade is one of the most lucrative businesses among global criminal enterprises (Nellemann et al., 2016), and as several studies and international organisations have pointed out, the activity itself shows signs of organisation, with dangerous, well-organised criminal organisations also engaging in this activity. The threat to

society posed by the global illegal trade in animals and plants is compounded by the fact that it is typically associated with other serious crimes such as fraud, corruption, money laundering, arms trafficking, trafficking in counterfeit goods, and trafficking in drugs, arms and human beings (Anagnostou & Doberstein, 2021).

The UN Security Council has noted that overlap and convergence in the trade in various illicit products is increasingly common (De Boer & Bosetti, 2015). Researchers have recently begun to provide evidence and establish a theoretical framework for the convergence between environmental crimes and other crimes (D. van Uhm et al., 2021; D. P. van Uhm & Moreto, 2017; D. P. van Uhm & Nijman, 2020).

The overlap may vary depending on whether an organised criminal group engages in illegal wildlife trafficking on an ad hoc basis alongside other trafficking of illicit goods or whether this is the main activity of the group (D. P. van Uhm & Nijman, 2020). The exact extent to which organised crime is specific to the illegal wildlife trade is not known, but it is a fact that it is not only organised (Anagnostou, 2021).

International inter-governmental and non-governmental organisations (UNODC, TRAFFIC) have mentioned in several reports that other organised criminal activity may be linked to this activity, but this claim is usually only mentioned as it is not supported by detailed analysis or other evidence. Detailed analyses based on objective facts are typically found in the academic literature. A quantitative scientific study has carried out a thorough analysis of scientific articles published in the international literature in English (Anagnostou & Doberstein, 2021). This study and its results are presented in detail in this chapter. Overall, I conclude that international drug trafficking, money laundering, corruption, and violent crime are linked to illegal international trade in wildlife species.

In Chapter 11, "Organised criminal groups in relation to the international nature of illegal trade in wild fauna and flora in Hungary", I examine the characteristics, context and international organisation of illegal trade in wild fauna and flora in Hungary. As in the previous chapters, I use the Palermo Convention concept of organised criminal groups as a basis for my analysis. The chapter shows that Hungary has recently been primarily a destination and transit country, but as specific cases show, it has also sometimes been a source country for certain species (e.g. songbirds).

All of the organised criminal group structures outlined above can be identified: transnational corporate crime, disorganised groups and, in some cases, indications of the involvement of hierarchical criminal groups.

To write this chapter, I analysed crime statistics, examined closed case files and conducted interviews with experts.

8. Conclusions

My PhD thesis shows that the international illegal trade in protected species of animals and plants poses a serious threat to the biodiversity of the Earth's wildlife, which may have direct impacts on the human environment, biological balance and the future of humanity. In addition to this, a further threat to society is that it is associated with serious collateral crimes such as corruption (bribery) and money laundering, which threaten the stability of countries and regions. Accordingly, effective action must be a top priority. In this thesis, I have highlighted the fact that transnational organised crime plays a significant role in the illegal trade in protected species of fauna and flora. When organised crime is described in the international scientific literature or in the reports of international organisations, the concept of organised criminal groups as defined in the Palermo Convention is taken as a basis. The difficulty in tackling this phenomenon is that the concepts of organised criminal group and organised crime are often conflated, and are seen as synonymous. In writing this thesis, I was confronted with the fact that I could find few specific reports or articles in the international literature that analyse in detail the structure and division of labour of organised crime groups involved in this activity, but only that organised crime complicates this activity.

In this thesis, I have highlighted the nuanced nature of the picture, the variety of structures and divisions of labour of organised criminal groups that exist across countries and continents, many of which are not even considered by law enforcement or internationally renowned researchers to meet the Convention's definition of an organised criminal group.

A common misconception, and unfortunately often a misconception among some professionals, is that organised crime groups are mafia-type organisations based on a rigid hierarchy, controlled by a godfather, under whom subordinates and soldiers operate. As we can see, this type of organisation is less common in the illegal trade in protected species: there are areas (illegal rhinoceros, caviar trade) where it is clearly present, but in most cases it is carried out by legal companies or loosely structured networks, or a mixture of the three.

It can be seen that operating in a corporate, loose network or hybrid structure can also fit the concept of organised criminal groups. As I pointed out in the thesis, it is often more difficult to tackle loose networks, firstly because the authorities (and often the literature) consider them not to be organised criminal groups, and secondly because if a participant (poacher, trafficker, smuggler, etc.) is arrested or disappears, the network continues to operate smoothly, as some members can be easily replaced. In the case of hierarchical criminal organisations, the loss of a subordinate leader or the highest ranking leader can cause disruption or even the complete collapse of an organisation. Another difficulty in tackling such organisations is that, while in hierarchical organisations, members are closely linked, know each other well and, through the tactics of investigation used worldwide (e.g. plea bargaining), members can bring each other down, triggering a domino effect that can reach down to the leader of the organisation and cause the collapse of the whole organisation. In loose networks, on the other hand, the relationship between members is very ad hoc, they know little about each other's affairs, the identity of the next member in the chain varies, and therefore the tactics outlined above are not feasible or difficult to implement.

A further difficulty in combating such internationally operating criminal organisations is the cross-border, cross-continental criminal network and the lack of close criminal cooperation required. In all the examples of successfully solved transnational cases of a transcontinental nature cited in the thesis, there was close criminal cooperation and exchange of information between the authorities of the countries concerned.

The key to effective action against these entities could be close criminal cooperation between the countries concerned, further research and analysis of the structure and functioning of criminal organisations, and the reduction of corruption.

9. New scientific results

9.1. Recent illegal international trade trends in the EU

At the beginning of the thesis and research, my hypothesis 1 was that analysis of seizures in the EU would reveal new trends indicating the presence of organised crime.

In the thesis, I described the analyses that had been carried out prior to my research on the basis of seizures of illegal imports and exports into the territory of the European Union and the conclusions that had been drawn from them. According to these findings, the EU can be considered a destination and transit country for caviar, corals, certain turtles, parrots, and

medicinal products related to traditional Chinese medicine and other plant and animal derivatives. It is a source country for glass eels and certain protected bird species (falcons).

My research described in this thesis has revealed recent trends in international illegal wildlife trade involving the EU.

In the international illegal ivory trade, previous seizure data have shown that processed ivory has entered the EU from Africa as an imported product. Research shows that in the years 2015-2020, there were 27 seizures of worked ivory (sculptures) averaging 4.34 kg, all of which were attempted illegal shipments by postal parcel and all of which were destined for China. This shows that the EU is considered a major source of international trafficking on the internet, and it is therefore the responsibility of law enforcement agencies in some EU Member States to screen individual advertisements, detect advertisers and stockpiled ivory, and to build enhanced criminal cooperation between the EU and China as a destination country.

The EU is mentioned as a target country in several studies on various medicinal products containing protected plant or animal derivatives. I have found that preparations containing seahorse or medicinal leech extracts are regularly and in large quantities illegally entering Poland by road from Ukraine, a route that has not been mentioned in previously published reports and research papers.

There is no mention of the red lynx (*lynx rufus*) in the Americas as a species involved in international illegal trade imported into the EU, neither in research nor in reports. According to my research, there were 17 seizures of red lynx fur during the period under review, averaging 20.6 kg. The number of seizures indicates a commercial quantity. In all cases the source country was the United States of America and the destination country was Greece.

Overall, all trends indicate that the average seizures to and from EU countries are high commercial quantities. This suggests that protected species to and from the EU are not the subject of isolated, small-scale smuggling activities, but are regularly traded on a recurring basis by individuals or groups. Further research is needed to clarify whether the illegal trade is carried out by one or more groups or by individuals. It is important to answer this question, because if one or more groups are carrying out this activity for regular profit, organised crime will arise. The seizure data also point to the already known problem of the global nature of the activity.

9.2. Hungary is also involved in the international illegal trade in animals and plants affecting Hungary

According to hypothesis 2, Hungary is involved in illegal trade in animals and plants by international organised crime groups.

I used the concept of organised criminal groups of the Palermo Convention as the basic concept of the research. According to the statistical data obtained, criminal files examined and expert interviews conducted, Hungary is mainly involved as a destination and transit country, and the presence of organised criminal groups can be observed in these cases.

The country is identified as a destination country for products obtained through illegal online trade. In particular, data on the presence of international organised crime groups were found in relation to illegal animal and plant products seized and criminal cases at Liszt Ferenc International Airport. The products seized in criminal cases were all medicinal products containing herbal derivatives covered by the CITES Convention and clothing and accessories made of reptilian skin covered by the Convention. It is also important to note that in the cases I have examined, none of the source countries has made a reservation to the CITES Convention in relation to the specific species concerned, and in specific cases neither export nor import permits were available, which means that international trade in such products is a criminal offence in the source country.

In all these cases, legally registered companies are trading illegally at international level, taking advantage of the opportunities offered by the online space. From a criminological point of view, this is equivalent to corporate crime committed within the framework of a business partnership.

From a criminal law point of view (as explained in the relevant chapter), if a legally registered company commits offences for financial gain, it corresponds to the concept of an organised criminal group. The members of the company can be said to carry out their activities within the framework of the Palermo Convention organised criminal group and, in accordance with the obligations assumed under the Convention, the States Parties (source, transit and destination) are subject to legislative, law enforcement and international cooperation (law enforcement, judicial) obligations.

Another typical trend identified in my research is the international illegal trade in protected birds between some Eastern European countries (mainly Romania) and Italy, with Hungary acting as a transit country. The criminal cases examined and the expert interviews conducted suggest that the cross-border group crime involved in this phenomenon falls under the heading of loosely organised networks (disorganised networks) from a criminological point of view. In some cases, there are also indications of the presence of a hierarchical criminal organisation.

From a criminal law point of view, it can also be established in these cases that the group forms of offence can be included in the definition of organised criminal group in the Convention. In one of the cases, there is also a suspicion of criminal organisation under the Hungarian Criminal Code.

Hungary plays a transit role in international illegal snowdrop smuggling. Snowdrops (*Galanthus nivalis*) are a CITES Appendix II species that were illegally transported from Ukraine to Italy, typically by road, during the period under investigation. The data obtained during the research show that the flowers were mostly transported in cut form, in most cases in larger, commercial quantities. The specific organisation was not identified during the research, but the results so far indicate further research directions.

9.3. The concept of criminal organisation in the Hungarian Criminal Code does not apply to several organised criminal groups that qualify as organised criminal groups under the Palermo Convention

According to hypothesis 3 of the thesis, the concept of criminal organisation as defined in the Hungarian Criminal Code is much narrower than the Palermo Convention's concept of organised criminal group, and therefore cannot be applied to the group forms of criminality involved in the international illegal trade in animals and plants in Hungary.

As I have described in previous chapters and here, the research findings show that Hungary is involved in international illegal trade in animals and plants as a destination and transit country, and that the concept of organised criminal groups can be applied to all of the group forms of offences (corporate crime, unorganised networks), but not to all of them as a criminal organisation under the current Hungarian Criminal Code.

The new concepts introduced by the 2019 amendment to the Criminal Code (hierarchically organised, conspiratorially operating) have significantly narrowed the scope of application of the criminal organisation. In my view, this has made it more difficult to take effective and consistent action against a large number of offences committed by organised criminal groups, which in criminological terms form part of organised crime. Domestic legislation has moved the legal classification of these groups down a level to the level of criminal conspiracy, which carries less severe legal consequences.

9.4. Lack of international exchange of information between investigating authorities in international criminal cases

According to hypothesis 4 of the thesis, international exchange of information in Hungarian cases is basically absent, and foreign links are not detected.

All the criminal cases examined in my research are international in nature, i.e. the source country or the destination country is outside Hungary.

As far as the cases I have investigated are concerned, I can state that in none of the cases investigated at Liszt Ferenc International Airport was there any indication that the Hungarian investigating authority had contacted any other relevant foreign investigating authority or any other organisation providing international criminal cooperation (Interpol, Europol).

However, various internationally protected animal or plant products, distributed or produced by a legally registered company in the same country, were regularly sent by air on the basis of online orders from the same countries (India, USA). An international exchange of information would have been justified in any case, or at least an alert should have been sent to a police body providing international criminal cooperation (Interpol, Europol).

Similarly, there is a lack of international criminal information exchange on illegal smuggling by road in the two areas discussed in the thesis (protected birds and snowdrops). An exceptional positive example, however, is the case of a case previously pending at the Makó Police Station, in which protected birds were smuggled from Romania to Italy via Hungary. The legal assistance initiated by the investigating authority in this case may have contributed to uncovering a network operating at international level.

9.5. In our country, international corporate criminal groups and unorganised networks are involved in illegal trade in wildlife species

According to hypothesis 5 of the thesis, in Hungary it is not the so-called classical, hierarchical criminal organisations that are typically involved in the international illegal trade in protected species, but corporate criminal groups and unorganised networks.

The characteristics of hierarchical criminal organisations are: a single leadership, a clearly defined hierarchy, strong internal discipline, strict internal rules, the organisation is known by a name (e.g. *cosa nostra*), there are often strong social or ethnic links between members, violence is a fundamental feature of the activity, and the organisation often has full influence and control over a defined geographical area (UNODC 2010).

Corporate crime is the set of unlawful and harmful acts committed by employees of a company to further individual or company interests (Friedrich 2010).

Unorganised networks are groups that carry out the trade and smuggling of various protected species across several countries: for example, the smuggling apparatus, whose composition often varies, sometimes temporarily. The identity and composition of the members of such smuggling networks are not stable, and the links between the individual members of the chain are loose. The group reacts flexibly to various socio-economic, political and ecological changes, seeking opportunities to develop its illegal activities as efficiently and profitably as possible.

The results of international research also show that, in general, international organised crime groups have taken a wide variety of forms, structures, numbers, periods of operation and activities.

These groups range from rigid criminal organisations with the well-known 'mafia' structure to loose, flexible transcontinental networks. Some criminal organisations achieve full influence in political power, others less or not at all. Some groups can take control of the legal economy and influence it significantly, while some are more likely to penetrate it through money laundering activities. Corruption is a tenet of some groups, others less so. They can also vary in size from hundreds of members (the rarest) to a few dozen. Likewise, the time periods of their operation vary considerably (several years or only a few months). These differences are often not only specific to organisations established in different geographical areas, but also to organisations established within a single country. Despite the diversity, they all have in common that they all commit (usually serious) crimes in order to gain more profit and influence (Szendrei, 2018, 88). The dangers of organised crime lie in its ability to destabilise national security, the legal order and the economic system of some states (Kozlowsky 2018, 59), and in the fact that it poses a criminal challenge to law enforcement authorities, making it difficult to conduct effective investigations (Bócz 2008, 11).

In the cases of international nature damage cases involving our country, which were committed by entities classified as organised criminal groups, it can be stated that, according to my hypothesis, they were not committed by classic mafia organisations under hierarchical control, but by companies or business associations operating abroad (corporate crime) or loosely organised networks (disorganised networks).

9.6. Organised crime in our country is not linked to other serious crimes that are globally common according to international literature.

According to Hypothesis 6, international illegal trade in protected animals and plants involving Hungary is not linked to other organised crime offences that international research suggests are generally, globally, characteristic.

According to international research, other crimes closely linked to organised crime are also closely linked to cross-border illegal wildlife trade: corruption crimes, money laundering, trafficking in other illegal products (drugs, arms, human trafficking), violent crimes, etc. (Anagnostou & Doberstein, 2021)

Based on the interviews conducted and the criminal cases viewed, there was no clear indication of this in the cases involving our country.

10. Recommendations

The European Union has made the fight against wildlife crime an EMPACT priority for the current cycle 2015-2021 and beyond 2021. My own research confirms that organised crime is present in the illegal trade of protected species of fauna and flora in the European Union and in Hungary, so it is certainly welcome that the problem is recognised as a priority area.

For the EU, my quantitative analysis of seizure data has revealed new trends and areas of trade activity and the involvement of organised crime groups. On this basis, I see a need for further research and analysis of the phenomena identified (not only at the research level, but also at the level of crime analysis and law enforcement), as well as for further analysis based on quantitative methods (seizure data). Although the so-called SOCTA questionnaires are used to explore methods and trends in different crime areas, they are typically not a quantitative based research method.

In my research, I found that illegal activities of internationally operating organised criminal groups related to wildlife species affect our country, mainly as a destination and transit country, but that most of these cases are not given sufficient priority. On the one hand, on the basis of jurisdictional rules, these criminal cases are handled by local police investigation authorities, and on the other hand, partly as a result of this, international information exchange and the detection of international links is not carried out.

Investigations into protected species seized at international airports or road crossings are the responsibility of local (or Airport Police Directorate) investigative authorities under the current jurisdictional regulation.

The National Bureau of Investigation (KR NNI) can only investigate a criminal offence if it is "suspected of being committed by a criminal organisation ... if the underlying offence has an international character as defined in Article 3(2) of the Convention against Transnational Organised Crime, adopted by the United Nations in Palermo, 14 December 2000, promulgated by Law CI of 2006 (hereinafter referred to as 'international character')".

First of all, the Regulation would completely remove from the jurisdiction of the NNI the investigation of any criminal case that "only" meets the definition of an organised criminal group under the Palermo Convention, but not the Hungarian Criminal Code. Secondly, it is not clear what is meant by "suspicion of being a member of a criminal organisation": reasonable suspicion or mere suspicion is sufficient, to what extent the existence of a criminal organisation must be proven in the case.

In any case, it would be appropriate to transfer the investigation of these cases to the National Bureau of Investigation, which specialises in transnational organised crime, while of course increasing the number of staff in the environmental crime unit. The solution could be to strengthen the local police forces in terms of numbers and technology, while maintaining the same standards of competence, so that they can act more effectively in such cases by using rapid international exchange of information.

I have also found that the concept of criminal organisation in Hungarian criminal law is significantly narrower than the concept of organised criminal group in international conventions (Palermo Convention, EU Framework Decision). With the 2019 amendment to the Criminal Code, the legislator has significantly narrowed the scope of entities to which it would apply, so the restoration of the old, broader concept of criminal organisation requires consideration by the legislator.

It is well known that our current legislation provides for a two-stage assessment of organised crime: criminal organisation and criminal association, both of which provide for more severe legal consequences in view of the increased risk of organised, group crime. Thus, from this point of view, a broadening of the concept of criminal organisation does not seem justified. However, in the case of conspiracy, the legislator provides for much less severe penalties than in the case of criminal organisation (e.g. doubling the maximum penalty for criminal

organisation, reversal of the burden of proof in the case of confiscation, etc.). In addition, the Criminal Code. In the Special Section of the Criminal Code, the offence of damage to nature is not listed as a specific qualifying case.

A solution would be for the legislator to make the offence of damage to nature a separate offence of conspiracy.

A further problem is that the basic offence of nature damage is punishable by imprisonment of up to three years. The Palermo Convention defines "organised criminal group" as "a structured group of three or more persons, existing for a certain period of time, acting in concert with a view to committing one or more of the serious crimes defined in this Convention, with the aim, directly or indirectly, of obtaining financial or other material gain".

As the thesis shows, the crimes of nature damage committed in an organised manner at the international level, involving several persons, which also affect our country, fall within the definition of organised criminal group in the Convention, based on the structure of the group, the only missing condition being the "serious crime" condition in the Convention. According to the Convention, "serious offence" means "conduct constituting a criminal offence punishable by a maximum penalty of at least four years' imprisonment or a more severe penalty". Under our current Penal Code, the basic offence is punishable by imprisonment for up to three years, which means that an increase in the severity of the penalty could be considered.

11. Practical use of research results

The scientific results of this thesis can be used in practice by the scientific community, education and practitioners.

In the thesis, I also explained that there are very limited Hungarian-language studies and theses on the topic, and even fewer domestic publications on international conditions. It is also true that the role of organised crime in this activity has not been researched by domestic experts. Therefore, the chapters and findings analysing international trends can serve as a useful resource for both domestic law enforcement education and practitioners.

The new trends identified in relation to the EU open up new avenues (analyses) for law enforcement practitioners, and also provide new research directions for academics.

The lack of international exchange of information on international matters is unacceptable. Similarly, experience from research has shown that the investigation of international crimes by

local investigating authorities is not sufficiently effective. I have made specific recommendations to law enforcement in this area.

The analysis of the existing criminal law concept of criminal organisation raises practical questions for both practitioners and legislators, and may trigger new research or even a codification process.

List of literature used for the thesis

- Anagnostou, M. (2021). Synthesizing knowledge on crime convergence and the illegal wildlife trade. *Environmental Challenges*, 5, 100222. <https://doi.org/10.1016/j.envc.2021.100222>
- Bócz, Endre (2008): A szervezett bűnözésről és a bünszervezet fogalmáról. *Magyar Rendészet*, 8, 5-23.
- De Boer, J., & Bosetti, L. (2015). *The crime-conflict “nexus”: State of the evidence*. 5(9), 1–25.
- Kozlowsy, R. (2018): Organized Crime in Europe. *Magyar Rendészet*, 18(5), 57-76
- Nellemann, C., Henriksen, R., Kreilhuber, A., Stewart, D., Kotsovou, M., Raxter, P., Mrema, E., & Barrat, S. (Szerk.). (2016). *The rise of environmental crime: A growing threat to natural resources, peace, development and security*. United Nations Environment Programme.
- Pádár, Z., Nogel, M., Kovács, G., Gárdonyi, G., & Zenke, P. (2022). A vadvilági bűnözés sajátos kriminalisztikai kihívásai Magyarországon. *Belügyi Szemle*, 70(9), 1727–1748. <https://doi.org/10.38146/BSZ.2022.9.1>
- Rosen, G. E., & Smith, K. F. (2010). Summarizing the Evidence on the International Trade in Illegal Wildlife. *EcoHealth*, 7(1), 24–32. <https://doi.org/10.1007/s10393-010-0317-y>
- Stiles, D., Redmond, I., Cress, D., Nellemann, C., & Formo, R. K. (2013). *Stolen Apes: The Illicit Trade in Chimpanzees, Gorillas, Bonobos and Orangutans*. https://gridarendal-website-live.s3.amazonaws.com/production/documents/s_document/62/original/GRIDPublication.pdf?148364642
- Szendrei, Ferenc (2018): A szervezett bűnözés gazdasági háttere és a pénzmosás, *Magyar Rendészet*, 18. évf. 5. szám, doi: 10.32577/mr.2018.5.5, p. 77-91.
- UNODC (Szerk.). (2010). *The globalization of crime: A transnational organized crime threat assessment*. UNODC.
- van Uhm, D. P., & Moreto, W. D. (2017). Corruption within the Illegal Wildlife Trade: A Symbiotic and Antithetical Enterprise. *The British Journal of Criminology*. <https://doi.org/10.1093/bjc/azx032>
- van Uhm, D. P., & Nijman, R. C. C. (2020). The convergence of environmental crime with other serious crimes: Subtypes within the environmental crime continuum. *European Journal of Criminology*, 147737082090458. <https://doi.org/10.1177/1477370820904585>
- van Uhm, D., South, N., & Wyatt, T. (2021). Connections between trades and trafficking in wildlife and drugs. *Trends in Organized Crime*, 24(4), 425–446. <https://doi.org/10.1007/s12117-021-09416-z>
- Viollaz, J., Graham, J., & Lantsman, L. (2018). Using script analysis to understand the financial crimes involved in wildlife trafficking. *Crime, Law and Social Change*, 69(5), 595–614. <https://doi.org/10.1007/s10611-017-9725-z>

Wyatt, T., van Uhm, D., & Nurse, A. (2020). Differentiating criminal networks in the illegal wildlife trade: Organized, corporate and disorganized crime. *Trends in Organized Crime*. <https://doi.org/10.1007/s12117-020-09385-9>

The doctoral candidate's publications

Zsigmond Csaba: A környezeti bűncselekmények és a szervezett bűnözés, In: Frigyer, László (szerk.), Budapest, Magyarország: Nemzeti Közszolgálati Egyetem (NKE) (2018) 323 p. pp. 169-188., 20 p.

Zsigmond Csaba: A párhuzamos nyomozások gyakorlati problémái In: Frigyer, László (szerk.) Nemzetközi jellegű szervezett bűnözés nyomozásának kutatása információáramlási szempontból Tanulmánykötet I. Budapest, Magyarország : Nemzeti Közszolgálati Egyetem (NKE) (2018) 323 p. pp. 8-32., 24 p.

Zsigmond Csaba: A védett fajok nemzetközi csempészete és a szervezett bűnözés In: Gaál, Gyula; Hautzinger, Zoltán (szerk.) A bűnüldözés és a bűnmegelőzés rendészettudományi tényezői Pécs, Magyarország : Magyar Hadtudományi Társaság Határőr Szakosztály Pécsi Szakcsoport (2019) 359 p. pp. 287-292. , 6 p.

Zsigmond Csaba: A szervezett bűnözés elméleti megközelítéseitől a bünszervezet nemzetközi és hazai jogi fogalmáig BELÜGYI SZEMLE: A BELÜGYMINISZTERIUM SZAKMAI TUDOMÁNYOS FOLYÓIRATA (2010-) 68 : 10 pp. 61-80. , 20 p. (2020)

Zsigmond Csaba: Trends in illegal wildlife trade across the EU between 2015 and 2020, DRC SUSTAINABLE FUTURE: JOURNAL OF ENVIRONMENT AGRICULTURE AND ENERGY 2020/1 pp. 161-170. , 10 p. (2020)

Zsigmond Csaba: Nyomozások a gazdaságvédelem területén In: Ruzsonyi, Péter (szerk.) Közbiztonság : Fenntartható biztonság és társadalmi környezet tanulmányok III. Budapest, Magyarország : Ludovika Egyetemi Kiadó (2020) 2,134 p. pp. 733-762. , 30 p.

Harnberger Gábor György, Zsigmond Csaba: A veszélyeztetett vadon élő fajok szállításának vámhatósági ellenőrzése, MAGYAR RENDÉSZET 20 : 1 pp. 45-66. , 22 p. (2020)

Zsigmond Csaba, Kovács Dóra: Experiences of the Hungarian customs authority in international illegal wildlife trafficking DRC SUSTAINABLE FUTURE: JOURNAL OF ENVIRONMENT AGRICULTURE AND ENERGY 2 : 1 pp. 54-60. , 7 p. (2021)

Винце, Вари ; Чаба, Жигмонд Заштита дивљих животиња и биљака у међународном и мађарском праву GLASNIK ADVOKATSKE KOMORE VOJVODINE 94 : 3 pp. 712-739. , 28 p. (2022)

Zsigmond Csaba: Bünszervezetek a nemzetközi illegális állat- és növénykereskedelemben MAGYAR RENDÉSZET 22 : 1 pp. 195-223. , 29 p. (2022)

Vince Vári, Csaba Zsigmond: Protection of flora and fauna in international and Hungarian law GLASNIK ADVOKATSKE KOMORE VOJVODINE 2022 : 3 pp. 740-766. , 27 p. (2022)

Vari Vince, Zsigmond Csaba: Zaštita divljih životinja i biljaka u međunarodnom i mađarskom pravu In: Stanko, Bejatović (szerk.) Zbornik Rezimea - Životna sredina i krivičnopravni

instrumenti zaštite : Regionalna naučno-stručna konferencija (Novi Sad, 21. oktobar 2022. god.) Skupština Autonomne Pokrajine Vojvodine, Srpsko udruženje za krivičnopravnu teoriju i praksu, Republika Srbija Viši sud u Novom Sadu, Advokatska Komora Vojvodine (2022) 46 p. pp. 43-44. , 2 p.

Biography of the doctoral candidate

Csaba Zsigmond was born on 07 november 1975 in Budapest

Studies

After graduating from high school in 1995, he studied full-time Criminal Investigation at the Police College, where he graduated as a Criminal Investigation Officer in 1998.

After graduating from the college, he continued his studies at the Faculty of Law and Political Sciences of the Lóránd University of Sciences from 1999, where he obtained a law degree in 2003.

In 2008, he passed the law enforcement exam

Professional examination in law 2012

PhD student at the Doctoral School of Law Enforcement since 2017

Passed the complex examination with 94 % in 2019 at the doctoral school
graduated in 2021

Language skills: C1 English complex "law enforcement" and B1 German complex

Jobs

From 1998 to 1999, he started his career as an investigator at the Budapest Police Headquarters in District XII.

From 1999 to 2003, he was an investigator at the Investigation Department of the Property Protection Division of the Budapest Police Headquarters

From 2003 to 2005, he was the chief investigator of the Life Protection Division of the Investigation Department of the Budapest Police Headquarters

From 2005 to 2011 Head of the Special Cases Division of the Criminal Investigation Department of the Budapest Police Headquarters

The department was responsible for the investigation and preparation of charges in cases of organised or economic crime. One of the successful investigations of the department was the notorious "black army" criminal organisation

From 2010 to 2011, deputy head of the V. District Police Headquarters of the Budapest Police Headquarters

From 2011 to 2014, he was a senior officer in the Criminal Coordination Department of the Budapest Police Headquarters, where his main task was to coordinate and direct criminal cases related to economic protection

From 2014 to 2019, he was the Senior Specialist of the Corruption and Economic Crime Unit of the Criminal Investigation Department of the National Police Headquarters, where he was responsible for the specialised line of action against asset recovery and environmental crime

Since 2019, he has been assigned to the Department of Crime, Economic Protection and Cybercrime at the Faculty of Law and Order of the National University of Public Service (Master's degree and then Assistant Professor)

Awards and distinctions

In 2003 he was awarded a commendation and a reward by the Chief of Police of Budapest for his actions in the apprehension of an armed criminal

In addition, he has received several commendations and awards from the BRFK and ORFK Director General of Criminal Investigation.

In 2012, he was awarded first prize in the scientific competition of the Head of the Institute for Law Enforcement Leadership Training and Research of the Federal Ministry of Justice for his study "The experience of investigating a criminal organisation or the dismantling of a criminal organisation".

In 2013, he was also awarded first prize in the scientific competition of the Internal Affairs Review and the Scientific Council for Internal Affairs for his paper "Problems and issues of the new legal defence in the field of law enforcement".

Conference presentations on the research topic

2019 "Issues of the environment crime investigations" (international conference) - NKE RTK

2021 "Nature damage from the perspective of law enforcement" - National Institute of Criminology

2022 "Environmental efforts on the scale" - organized by the University of Szeged, Szeged University of Sciences and Arts, NKR

2022 "Current Issues in Criminal Intelligence" - Department of Criminal, Economic and Cybercrime Protection, NKE RTK (international conference)

Publications

23 publications in MTMT, of which 18 in Hungarian and 5 in foreign languages