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*School of Education and
Communication*

Framing the Songbird Trade:

*A Comparison of How Global Experts and Local Actors in
Türkiye Frame Illegal Songbird Trade*

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Abstract

One of the main causes of the loss of biodiversity in the world is the illegal wildlife trade. The "Silent Forest" syndrome is an ecological catastrophe brought on by the overexploitation of songbirds. This illegal trade has moved more and more to online platforms in recent years, developing into a sophisticated network of cybercrime. Traditional macro-level interventions often fail because they ignore the micro-level socio-cultural incentives driving local demand, even in the face of improved international regulations and digital monitoring. In order to close this gap, this study examines illegal wildlife crime and its associated cybercrimes. This qualitative study compares how various stakeholders understand the issue using social construction theory. The study looks at how different groups describe the problem, its causes, its morality, and its potential solutions via the prism of social construction theory. By allowing a systematic comparison of how local actors and international experts define the same environmental crime through various socio-cultural and experiential circumstances, this theoretical lens directly supports the study's goal and research questions. The data was gathered through semi-structured in-depth interviews with 11 global wildlife experts and 8 male bird enthusiasts in Türkiye.

The results show a significant ontological gap between the two groups. The songbird trade is framed by international experts as an ecological disaster, an animal welfare issue, and a cybercrime risk brought on by insufficient regulation and economic desperation. On the other hand, local Turkish actors see the same issue as the decline of traditional master-apprentice birdkeeping culture, tainted by ignorant, self-serving opportunists who take advantage of the anonymity of the internet. In order to defend their conduct, local actors also use neutralization strategies, portraying the capture of wild birds as a moral obligation based on aesthetic appreciation and care. The study concludes that going beyond technological surveillance and prohibitionist measures is necessary for preventing the cyber-enabled songbird trade. International conservation initiatives must be in line with local sociological realities by including behavior-change tactics adapted to the cultural narratives of particular target groups.

Keywords: Illegal Wildlife Trade, Songbird Trade, Cybercrime, Behavior-Centered Design (BCD), Social Construction Theory, Frame.

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Foreword

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Abbreviation	Original Form
BCD	Behavior-Centered Design
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COM	Confédération Ornithologique Mondiale
E	Expert
EUTWIX / TWIX	Trade in Wildlife Information eXchange
IFAW	International Fund for Animal Welfare
NGO	Non-Governmental Organization
OECD	Organisation for Economic Co-operation and Development
T	Turkish Participant
UNODC	United Nations Office on Drugs and Crime

1. Introduction

Illegal wildlife trade is recognized as one of the most destructive drivers of global biodiversity loss, deepened by increasing pressures on terrestrial and marine ecosystems (Moreto, 2018, p. 86; Hicks, 2023, pp. 1, 2; Sung & Fong, 2018, p. 219). Numerous plant and animal species are directly impacted by this illegal trade, which creates a complex, multibillion-dollar underground economy run by international organized crime networks (Demeau et al., 2019, p. 104; OECD, 2019, p. 11). When combined with overexploitation, habitat loss via permanent land conversion for urbanization and agriculture rapidly speeds up the extinction of species (Fiennes et al., 2024, p. 2). In addition to economic infractions, transporting live animals in subpar conditions and with low welfare standards presents serious biosecurity hazards and frequently leads to significant death rates (Anagnostou et al., 2021; Baker et al., 2013; Bezerra-Santos et al., 2021; Can et al., 2019; Lavorgna, 2015, p. 354; Rosen & Smith, 2010). The global growth of new zoonotic illnesses is facilitated by the capture of wild animals from their habitats, which raises the risk of pathogen transmission to humans (Moreto, 2018; Can, 2025, p. 2; BirdLife International, 2020). Therefore, illegal wildlife trafficking is a complicated security issue that needs to be addressed right away since it disturbs ecosystem dynamics and jeopardizes biosecurity (Anagnostou & Doberstein, 2021).

With substantial social demand, particularly in Asia, native and imported songbirds are among the most impacted species in this worldwide ecological disaster (Mirin & Klinck, 2021, p. 2; Fiennes et al., 2024, p. 2). Because of ongoing poaching pressure, the acoustic diversity of forests is declining fast while habitats are physically intact (Eaton et al., 2015, p. 8). Birdkeeping has a long history in Türkiye, where species like the greenfinch, Eurasian tree sparrow, and green parakeet have become status and prestige symbols in homosocial settings (Arıkan et al., 2021, pp. 312, 313). This localized demand, concentrated in bird-keeping cafes and traditional competition venues, exerts exploitation pressures that far exceed the natural populations' capacity for regeneration. As a result, the ecological sustainability of the songbird trade is increasingly undermined by the socio-cultural practices, gender norms, and aesthetic preferences of local communities (Fiennes et al., 2026, p. 6).

The illegal songbird trade has not been eliminated by increased legal control at international customs and physical markets; rather, it has led criminal networks to relocate online and become part of the larger ecosystem of cybercrime (Nurbandi, 2022, p. 3). Rapid and large-

scale transactions have been made possible by the removal of obstacles between poachers and end customers brought about by the expansion of worldwide internet access and rising purchasing power. With billions of users, social media and e-commerce sites increasingly serve as vast online markets for illegal trade (Nurbandi, 2022, p. 17).

In order to ensure anonymity and lessen the efficacy of conventional law enforcement, sellers use emoticons, coded language, and encrypted chat apps to avoid detection by platform algorithms. This flexible, decentralized, and uncontrolled digital trade infrastructure is mainly immune to traditional conservation laws and border regulations (Siriwat, 2020, p. 60).

Because of this, songbird trafficking has changed from being an environmental infraction to a complex cybersecurity issue that calls for technology companies to actively cooperate and use advanced surveillance methods.

In addition to applying legal penalties, dismantling the quickly growing illicit network in cyberspace that is shielded by algorithmic systems necessitates the use of behavioral change design approaches that target the motives behind human behavior (Veríssimo & Wan, 2019, pp. 1,2).

In order to lower demand for illicit animal products, modern tactics spearheaded by international wildlife conservation coalitions, like the International Fund for Animal Welfare (IFAW) and the World Wildlife Fund, place a high priority on behavioral sciences and design-oriented thinking. These strategies go beyond deterrent technology interventions to address the demand side of wildlife crime by examining people's identity structures, social norms, and decision-making processes (Brown et al., 2026, pp. 1, 6). Determining the motivations behind target audiences' desire to buy unlawfully acquired birds from the wild allows for the creation of communications and physical environments that offer sustainable, legal alternatives. This approach aims to carefully recreate the psychological and cultural obstacles that impact consumers drawn to illicit listings on cyber platforms, in addition to automatically blocking such ads (Brown et al., 2025, p. 1). As a result, proactive control mechanisms that directly address the sociological foundations of human behavior are replacing purely prohibitive and punitive frameworks in environmental protection efforts (Moreto, 2018, pp. 265-266, 273-274).

A thorough theoretical understanding of this intricate criminological structure necessitates a methodical investigation of the ways in which different actor groups impact the processes of problem description and causative diagnosis (Fiennes et al., 2026, p. 2). Environmental

specialists from throughout the world usually characterize illicit trade in terms of cybersecurity vulnerabilities, animal welfare concerns, and biodiversity loss. Local Turkish actors, on the other hand, see the same phenomenon as the loss of true culture, the deterioration of traditional art, and the breakdown of the master-apprentice connection (Bezgin, 2021, pp. 1, 62).

This deep ethical contradiction not only undermines the effectiveness of substantial administrative fines imposed by the state but also compels offenders to conceal their activities within closed groups on cyber platforms (Siriwat & Nijman, 2018, p. 473). Rather than deterring offenders, current prohibitionist policies push them further into the digital underground, thereby rendering the issue a more concealed public safety concern. Therefore, it is essential that proposed solutions go beyond law enforcement measures to include sociological interventions that correspond with the moral values of the actors and incorporate achievable behavioral objectives (Sánchez-Mercado et al., 2024, p.2). The moral assessment of these behaviors and the subsequent creation of intervention techniques are greatly influenced by how actors defend their illegal conduct. Neutralization strategies are used by those who catch or buy wild birds to defend their activities, citing deep love for the birds, commitment to caring ethics, and tradition preservation (Sykes and Matza, 1957; Fiennes et al., 2026, p.2). Global nature conservation standards, on the other hand, vehemently denounce such actions as unethical and self-serving exploitation that directly damages ecosystems and ignores the inherent worth of living things (Sollund, 2015, p. 554).

Aim of this study:

This study aims to investigate how the illegal trade in songbirds is understood in the context of cybercrime and behavioral characteristics. To this end, the study aims to examine how global wildlife crime experts and local actors involved in songbird culture in Türkiye frame the same environmental crime from their respective perspectives.

Research Questions:

How do experts and locals of Türkiye problematize the illegal songbird trade? How do they explain the problem and propose solutions? Are there differences in the interpretations between the stakeholder groups? If so, which and why? How do these interpretations relate to and contribute to cybercrime and local cultural conceptualizations to combat the illegal trade in songbirds?

2. Literature review

This review of the literature provides three interrelated areas of knowledge that underpin the study of how global wildlife crime specialists and local actors in Türkiye's songbird culture problematize, explain, and seek solutions to the illicit songbird trade. The review comprises, in section 2.1, literature on national and international legal frameworks regulating wildlife trafficking and the limitations of these mechanisms in the Turkish context; in section 2.2, studies focusing on the cybercrime dimension addressing how social media and online platforms have become essential infrastructure for the illegal bird trade; and in section 2.3, research on the cultural and social aspects of the songbird trade in Türkiye. Finally, section 2.4 deals with the gaps in the literature.

2.1 Illegal Wildlife and Songbird Trade

The illegal wildlife trade is today seen as a sophisticated type of environmental crime that is connected to global criminal networks, speeds up the loss of biodiversity, and hinders the conservation of species. According to reports from the Organization for Economic Cooperation and Development (OECD, 2019) and the United Nations Office on Drugs and Crime (UNODC, 2024), wildlife crimes are a global governance issue with social, administrative, and economic components in addition to conservation biology. Because of this, the research mostly discusses international rules, transnational criminal networks, corruption, enforcement gaps, and species conservation programs in relation to wildlife trafficking.

International regulatory agencies and specialists in wildlife crime usually use legal and technological compliance frameworks like CITES to evaluate illicit trade (Van Uhm, 2018; Sajeve et al., 2013). The Convention on International commerce in Endangered Species of Wild Fauna and Flora (CITES), which was adopted in 1973, is the most significant international framework governing commerce in wildlife. Over 35,000 plant and animal species are governed by CITES, which now has more than 180 contracting parties (Van Uhm, 2018). The Convention uses permit processes to regulate international trade and divides species into three appendices according to their conservation status. Trading in species classified in Appendix II may be allowed under some circumstances, whereas trading in species listed in Appendix I is generally forbidden. Appendix III covers species that are protected by specific countries and for which international cooperation is sought (Sajeve et al., 2013; Morgan, 2015).

Even though CITES is considered the cornerstone of the global conservation regime, scholars have long debated the convention's efficacy. According to Challender et al. (2025, p. 2), it is challenging to experimentally show how much the convention has accomplished its goals because CITES lacks a precise and quantifiable theory of change. Echoing this criticism, Can (2025) along with Gutierrez and Duffy (2024) argue that species-based conservation strategies frequently overlook the social, cultural, and economic contexts of the species' habitats. These criticisms contend that illegal trading is a complex phenomenon influenced by human behavior, financial incentives, and regional cultural customs rather than just a biodiversity problem.

There are more than just theoretical objections to the application of CITES. According to Reeve (2006, p. 882), the Conference of the Parties' later rulings have significantly influenced the Convention's enforcement and compliance processes, creating legal ambiguities. The author claims that although the Standing Committee essentially serves as an enforcement body, it is unclear if this authority has a legal foundation in the Convention's text. This circumstance highlights a common issue in international environmental law: the disconnect between the creation of standards and the ability to put them into practice locally.

The majority of the literature on wildlife crime connects these enforcement gaps to structural causes such as institutional capacity deficits, corruption, and a lack of coordination among states. According to reports from the OECD (2019) and UNODC (2024), weak enforcement methods, inconsistent laws, and inadequate border controls are the main reasons why illegal commerce continues. However, Kaypak (2013, p. 19) points out that international treaties do not adequately address the structural and economic injustices that promote wildlife crimes. Additionally, Wellsmith (2011) contends that the poor execution of global environmental agreements and environmental crimes are closely related.

These conversations are important for Türkiye as well. Because of its advantageous location between Europe, Asia, and the Middle East, Türkiye is regarded as a major transit country for the global wildlife trade and is situated in an area rich in biological diversity. Türkiye is a signatory to several international environmental agreements, including the Bern Convention, the Convention on Biological Diversity, and CITES. The goal of national laws created in compliance with these treaties is to control the trade, import, and export of protected species (Arıkan et al., 2021, p. 300).

Nonetheless, current research indicates that the mere presence of legal restrictions is insufficient to stop illicit commerce. There are many instances of illegal wildlife trading in Türkiye, according to a study by Arıkan et al. (2021) that looked at 21 years of media archives. The results of the investigation indicate that birds are the most commonly seen animal category in smuggling cases. Smuggling cases sometimes involve species like the green parakeet (*Psittacula krameri*) and the African gray parrot (*Psittacus erithacus*). Legal prohibitions do not eradicate demand, as evidenced by the African grey parrot's continued appearance in smuggling instances in spite of the 2017 international commerce bans (Arıkan et al., 2021, p. 313).

Research on Türkiye's involvement in the wildlife trade shows that the nation serves as both a major transit route and a target market. Can (2025, p. 12) found that in 61% of 55 seized cases, Türkiye was utilized as a transit nation. Important hubs for logistics, especially for the transportation of species from Africa, are Istanbul Airport and the border crossings with Thrace. According to Arıkan et al. (2021, pp. 306–314), the Marmara Region accounts for about half of all smuggling instances. This circumstance emphasizes how strategically significant Türkiye's location is in relation to networks of illicit trafficking.

International smuggling networks are not the only ones involved in the wildlife trade, though. Local trading activities, particularly those driven by the need for songbirds, are also important. Over 460 bird species have been identified in Türkiye, and the country's location along important migration routes makes it easier for some species to be illegally captured and traded (Dayıoğlu et al., 2019, p. 78). Due to cage bird cultivation and competitions, certain songbird species, like the goldfinch (*Carduelis carduelis*) and greenfinch (*Chloris chloris*), are in high demand.

International literature likewise exhibits similar patterns. Research from South America, the Caribbean, and Southeast Asia shows that economic gain is frequently insufficient to explain the trade in songbirds. According to Ribeiro et al. (2019, p. 11), there are a variety of reasons why people buy birds, including competing, elevating their social standing, investing, and upholding customs. However, Wagret et al. (2026) and Fiennes et al. (2026) emphasize that rivalry culture in particular generates a substantial revenue stream for rural hunters and trappers.

Most of the literature on the topic claims that the primary motivation behind the songbird trade is the symbolic and economic value placed on certain species. Due to the relationship

between market value, song quality, competition success, and scarcity, certain species are frequently targeted (Benzohra et al., 2025, pp. 108–109; Fiennes et al., 2026; Mirin & Klinck, 2021). It has also been proposed that "actions in conservation might have opposite effects in some cases." According to Courchamp et al. (2006) and Siriwat (2020), strict conservation laws targeting species may increase their scarcity value, a phenomenon called the Anthropogenic Allee Effect, which unexpectedly increases demand (Challender et al., 2025). Additionally, educating customers about these conservation effects frequently has little impact on their purchasing decisions (Moorhouse et al., 2017). Therefore, conservation messaging and initiatives may unintentionally boost the market value of certain species.

The literature currently available on wildlife crime is noteworthy for its heavy reliance on official databases and seizure records. International trade flows can be tracked with the use of systems like CITES, World WISE, and Trade in Wildlife Information eXchange (TWIX), although these data only include detectable instances. According to Donald et al. (2024) and Siriwat (2020), it is challenging to determine the actual size of trade due to variations in reporting practices among nations. Additionally, the fact that a large number of local trade networks function outside of the official sector raises the possibility that the data available today only includes the visible aspect of illicit commerce (Lavorgna, 2014; van Uhm, 2018).

In recent years, there has been an increase in the use of criminology, environmental sociology and various ethnographies in wildlife crime research to overcome these limitations (Fiennes et al., 2026; Wyatt, 2013). These studies suggest that illegal trade is not only an economic activity or a legal violation, but also a process shaped by social interactions, cultural values, and everyday practices. Research specifically conducted in the context of the songbird trade demonstrates that birds hold profound social values, reflecting status, prestige, competition and belonging, making them more than commodities to be bought and sold (Fiennes et al., 2026; Mirin & Klinck, 2021). Therefore, the research suggests that in understanding wildlife crimes there is a need to consider the social and cultural contexts of the actors engaged in these activities, as well as standard laws and sanctions (Challender & MacMillan, 2014).

2.2 The Cyber Dimension of Environmental Crimes and the Online Trade in Songbirds

Environmental crimes are increasingly committed through digital technologies. Specifically, the shift of wildlife trading from traditional physical markets to online platforms has accelerated in the past 20 years due to the widespread availability of the internet (Siriwat & Nijman, 2020). This transition has altered not only the actual places where trading takes

place, but also the organizational structures of criminal networks, the interaction between buyers and sellers, and the efficacy of regulatory measures (Lavorgna, 2014; Wingard & Pascual, 2018). This phenomenon is usually expressed in the literature as "Internet-mediated wildlife trafficking" or the emergence of a "hybrid market" (Lavorgna, 2014). It is officially recognized by global institutions and researchers as "wildlife cybercrime" (IFAW, 2018; Siritwat & Nijman, 2020)

The internet has reduced many of the cost elements associated with the conventional wildlife trade, which is mainly carried out through physical markets, animal fairs, border regions, and intermediaries. Digital platforms have made it easier for new players to enter the market, allowed buyers and sellers to communicate directly, and helped create more adaptable international trade networks, according to Lavorgna (2014, p. 10). As a result, trade operations that were formerly exclusive to particular regions have started to be carried out over globally accessible digital networks.

Early research on online wildlife trafficking was predicated on the notion that the dark web was the primary location of the crime. Nevertheless, later studies have revealed that a large amount of this commerce actually takes place on publicly accessible surface web platforms (Harrison et al., 2016; Roberts & Hernandez-Castro, 2017). The marketing and promotion of animal items heavily relies on well-known networks like Facebook, Instagram, WeChat, and increasingly shifts toward encrypted messaging apps like WhatsApp and Telegram through tactical migration (Mou et al., 2024; Wyatt et al., 2022). Their enormous user bases, minimal technical entry barriers, and ease of reaching large audiences globally are important factors driving this proliferation (Lavorgna, 2014).

Easy access is one of the benefits that criminal networks receive from online platforms. On social media platforms, trade operations that necessitate certain social ties or physical connections in conventional smuggling networks can be completed for far less money (Lavorgna, 2014). New buyers and sellers can enter these networks more easily thanks to digital platforms, which are particularly popular among youthful people. According to Sirait et al. (2018), this has led to the conclusion that online environments are social spaces where crime is replicated and propagated, in addition to being communication tools.

In countries where physical marketplaces have closed or regulations have been tightened, the songbird trade has shifted online. Nurbandi (2022, p. 4) research also shows that trading activities have shifted to Facebook groups due to initiatives to traditional bird markets in

Indonesia. Many of the social media groups identified through the research were being actively used to buy and sell birds. Similar procedures have been reported in China, Mexico, Cuba and several Southeast Asian nations indicating a global shift towards digital platforms (IFAW, 2018; Salas-Picazo et al., 2023; Siriwat & Nijman, 2020; Xu et al., 2025).

Increased transaction volume is not the only way that digitalization affects wildlife crime. Additionally, the internet makes it easier to create new social networks that link consumers and sellers in various geographical areas. IFAW (2024, p. 139) shows that the Cuban songbird trade is sustained not just by local markets but also by digital networks connected to Cuban diaspora populations in the United States. This circumstance demonstrates how online commerce may serve as a tool for maintaining cultural links in addition to being an economic instrument.

The multi-layered communication structures of wildlife trafficking networks functioning in the internet environment are one of their primary features. Merchants usually initiate contact on public platforms but transfer important details, such price, payment, and delivery, to private chat channels. A large percentage of wildlife trade listings on Facebook reroute transactions from public venues to private conversations, according to a study by Xu et al. (2020, p. 210). Therefore, the actual transaction processes occur in private areas that are more challenging to monitor, even though the apparent content on these platforms simply represents the first stage of the trade. Because of this, internet trade networks are always trying to balance anonymity and visibility. In order to draw clients, vendors need to be somewhat visible, but they also try to hide their operations in order to stay out of trouble with the law. As a result, a variety of online camouflage techniques have been created. Using code words and symbols in place of product names is one of the most often mentioned strategies in the literature. According to Xu et al. (2020, p. 210), a lot of vendors refer to particular product categories using emojis, regional slang, or acronyms. Automated keyword scanning tools find it more challenging to identify these trade listings as a result.

Paralleling these adaptive strategies, Nurbandi (2022) notes that group administrators within Indonesian online bird trafficking networks actively filter new members, that some groups are only available by invitation, and that other terminology are purposefully changed in their usage. These tactics show how criminal networks can adjust to the technological possibilities provided by digital platforms. In addition to creating new opportunities, the relocation of criminal behavior to the digital sphere also gives birth to ever-evolving adaptive tactics in response to regulatory measures.

The phenomena known as "tactical migration" is one of the ideas that has been more prominent in the literature in recent years. This method, which was created by Santos et al. (2025), explains how participants in the online wildlife trade switch platforms when regulatory pressure mounts. For instance, consumers may switch to apps like Telegram or WhatsApp that offer end-to-end encryption if Facebook enforces stricter controls. Sharing this viewpoint, Yu and Jia (2015) and Krishnasamy and Stoner (2016) contend that rather than stopping trade, increased digital surveillance and social media rules frequently encourage it through more closed lines of communication..

Discussions over the efficiency of digital monitoring techniques have also been triggered by these advances. These days, web scraping, network analysis, and machine learning techniques are used by artificial intelligence-powered systems to monitor online animal trading. Xu et al.'s investigation, which examined more than 10,000 posts over 45 days, proved the viability of widespread digital surveillance (2020, p. 206). Following a comparable technological approach, initiatives such as ECO-SOLVE successfully detect suspicious content by simultaneously scanning thousands of listings.

Digital monitoring can have some serious drawbacks, though. First, publicly accessible content is the main source of access for current systems. However, crucial phases of trafficking frequently occur in closed groups or through private messaging. Furthermore, machine learning systems must be updated frequently due to the ongoing evolution of code words and symbols. Although the majority of online wildlife crimes take place in public, Sebahg (2021, p. 97) points out that law enforcement agencies do not prioritize these crimes. This circumstance indicates a mismatch between institutional priorities and technical capability.

Digital platforms are used for more than just communication in the wildlife trade. According to the literature, social media platforms, financial systems, and logistical service providers work together in an integrated trade ecosystem. According to Nurbandi (2022), certain networks use escrow payment systems, and third-party accounts serve as middlemen in transactions. This integrated ecosystem is further mirrored in the logistics sector, where shipping and transportation corporations are often exploited to transfer live animals despite their official regulations. Therefore, social media platforms alone cannot adequately capture the scope of the technological infrastructure that underpins online trading.

Digital platforms generate hybrid places where legitimate and illicit commerce activity coexist, according to recent studies. Siriwat and Nijman (2018) claim that within social media networks, animals that are lawfully marketed can coexist with illicit species. Sellers may try to justify their actions by stating that they have the required permits or by pointing to legal protective statuses. This complicates inspection procedures and makes it harder for users to discern illicit information.

Digitalization is moving forward in Türkiye substantially in accordance with international trends. Physical smuggling networks are still in place, according to cases found at Istanbul Airport and the border crossings in Thrace (Arıkan et al., 2021). Nonetheless, online platforms are becoming more and more important in the songbird trade in Türkiye when taking into account the digitization trends mentioned in the international literature. Social media has evolved into a digital social environment where actors exchange information, make connections, and uphold their cultural customs (Lavorigna, 2015). It is no more just a place where commerce takes place. In order to comprehend the online songbird trade, it is necessary to evaluate the social dynamics of these networks in addition to looking at technology instruments.

2.3 The Sociocultural Dynamics of the Songbird Trade

For a long time, the research on wildlife trafficking has mostly concentrated on macro-level problems like the organization of criminal networks, international law, species conservation, and biodiversity loss. However, new research has shown that the illegal wildlife trade is a social practice influenced by cultural values, social conventions, and personal motives rather than just an economic or legal activity. Research on the songbird trade, in particular, shows that birds are cultural artifacts with social values like prestige, status, tradition, competition, and identity rather than just live things that are bought and sold. Therefore, in order to comprehend the songbird trade, one must look beyond economic and legal justifications and consider the meanings that those engaged in these activities attach to birds.

Birds have long been important to Turkish culture. According to historical research, birds have religious, symbolic, and social significance in Turkish culture in addition to being seen as natural elements. Bezgin (2021, p. 51) claims that throughout the historical period spanning from Central Asia to Anatolia, birds have played a significant role in a variety of philosophical systems, from Sufi culture to shamanic beliefs. Birds have been portrayed as symbols of freedom, spiritual travel, and power in a variety of artistic creations and cultural

tales. In shamanic traditions, birds were considered sacred entities that traveled between the sky and the earth. This cultural customs around bird ownership and breeding today are rooted in historical heritage.

Birds have cultural connotations that go beyond historical symbolism. Birdkeeping also contributes significantly to the formation of some social identities in contemporary Türkiye. According to Bezgin (2021, p. 4), bird ownership is specifically linked to masculinity, power, and social status, and birdkeeping has historically been a male-dominated profession. The literature's portrayal of birdkeeping as a "exclusive domain of men" draws attention to the practice's gender component. Birdkeeping is not just a pastime but also a social arena where particular social identities are created, as seen by the historical exclusion of women from this subculture.

The culture of rivalry is one of the elements that increases the songbird trade's cultural relevance. Bird competitions play a major role in shaping the songbird trade, according to numerous studies published in international literature. Birds are valued not just as pets but also as living animals used for competition, according to research, especially in Southeast Asia and Latin America (Wagret et al., 2026; Fiennes et al., 2026; Iskandar et al., 2019). Among the most important evaluation factors in these contests are the birds' performance, song quality, and rarity; winning birds give their owners social status.

The demand created by contests is a major factor in the continuation of illicit trapping operations. According to Wagret et al. (2026), rural hunters and trappers benefit financially from the high demand generated by bird competition. Drawing a parallel conclusion, Fiennes et al. (2026) assert that the culture of competition sustains intense demand for wild-caught birds, thereby placing immense pressure on specific species. As a result, contests serve as both cultural and economic catalysts for trade networks (Iskandar et al., 2019; Mirin & Klinck, 2021) .

The material that is now available shows that demand cannot be fully explained by financial gain, even if economic incentives are a major factor in maintaining the songbird trade. According to research by Ribeiro et al. (2019, p. 11), there are several reasons why people buy birds, such as the desire to invest, the need to compete, the desire to maintain traditional cultural practices, and the desire to gain prestige within one's social circle. Additionally, the study shows that users in urban and rural areas differ significantly. It has been observed that whereas people in rural areas predominantly engage in commercial activities to create

economic revenue, urban consumers with higher income levels place more focus on incentives related to rivalry and prestige. These results suggest that the songbird trade should be seen as a domain where social status is built in addition to being an economic market. In some social groups, owning a bird is seen as a sign of prestige, expertise, and experience (Fiennes et al., 2026; Mirin & Klinck, 2021). Owning rare animals or winning competitions, in particular, gives people a special kind of symbolic capital. Because birds in this context become objects that offer social respectability and cultural prestige beyond their economic value, this circumstance might also be connected to Pierre Bourdieu's concept of symbolic capital.

Based to the research, three important factors (price, song quality, and rarity) have a significant impact on how much value is placed on birds. As noted by Benzohra et al. (2025, pp. 108–109), these three elements influence the market value of certain species and reinforce one another, especially in the songbird trade. A bird is more appealing from a commercial and symbolic standpoint due to its rarity, powerful singing ability, and high market worth. As a result, it has been noted that some protected species are traded in illicit marketplaces for greater prices (Courchamp et al., 2006; Alves et al., 2013).

The literature also addresses how conservation policies might occasionally have unanticipated consequences. According to Moorhouse et al. (2017), conservation and prohibition measures might raise the perceived rarity of some species, increasing their value. In markets associated with collecting, competitive culture, and the need for prestige, this phenomenon is especially noticeable. As a result, conservation efforts don't always lower demand; sometimes they might even make some species more desirable.

The songbird trade is sustained in large part by local networks. Although Wyatt et al. (2020) point out that organized crime networks frequently oversee high-value wildlife items, they also show that the songbird trade has a unique structure in many areas. In instance, local communities, amateur breeders, or small-scale vendors frequently engage in operations involving the acquisition of birds from the wild. As a result, compared to the structures commonly found in organized crime fiction, the songbird trade has a more diffused and culturally rooted nature.

The capacity of local networks to quickly adjust in the face of legal challenges is one of its noteworthy features. According to Shukhova and MacMillan (2020), stringent legal requirements sometimes push operations underground rather than stopping them. Among the

results of this process are the development of commerce forms based only on trust connections, the avoidance of registration systems, and the use of closed social networks. As a result, illicit activities become less noticeable but do not completely vanish.

Recent years have seen the increased use of social media, which has led to the emergence of new social connections related to bird breeding and the bird trade. Studies using network analysis have shown that some breeders or seasoned bird owners can emerge as key players, or "seeds," in online communities (Sanchez-Mercado et al., 2020). These people have an impact on trade as well as the development of standards about which animals are valued, which contests are prestigious, and what behaviors are acceptable.

In this setting, behavioral change interventions are likewise becoming increasingly important. Conventional conservation strategies frequently include deterrence and legal penalties.

However, behavioral research suggests that prohibition-only interventions are frequently inadequate (Moorhouse et al., 2017). The efficacy of communications that solely highlight legal hazards may be limited because people's motivations for owning birds are influenced by multifaceted elements like status, tradition, a sense of belonging, and social acceptance.

Similar results are also seen in studies carried out in Türkiye. Despite trade prohibitions on exotic species, Arıkan et al. (2021) show that illicit trading persists. This circumstance demonstrates that legal penalties are not the only explanation for the issue. The significance of educational interventions and tactics targeted at behavioral modification is being emphasized by an increasing number of scholars in literature. According to Arıkan et al. (2021), awareness initiatives that are especially designed to address biosecurity problems, public health dangers, animal welfare difficulties, and ecological repercussions can promote long-term reforms.

Beyond financial incentives, status-seeking, and cultural customs, scholars have increasingly investigated how participants in the wildlife trade rationalize and justify their engagement in actions that might go against the law and conservation standards. Sykes and Matza (1957) defined neutralization as the process by which people use various justifications for abnormal or unlawful behavior to reduce their guilt and maintain a positive self-image. Research on wildlife crime has shown that participants frequently contextualize their actions by portraying them as an expression of custom, competence, concern for animals, or the minor nature of personal injury (Sollund, 2015; Sollund & Maher, 2015; Fiennes et al., 2026). Instead of seeing their participation as a transgression, actors may see it as a respectable cultural

practice, a kind of stewardship, or the preservation of important customs. These results imply that in order to comprehend the wildlife trade, it is important to consider both the material incentives and the discursive techniques that participants use to justify their actions.

In conclusion, the body of research indicates that the songbird trade is a social phenomenon that cannot be well described by either financial gain or criminal chances. In many different contexts, birds play a crucial role in cultural identities, social status, customs, and competitive interactions. Therefore, studying legal infractions or market mechanics alone is not enough to comprehend the songbird trade. It also necessitates taking into account the cultural values connected to bird ownership, the social significance people attach to birds, and the norms of the communities that support these activities.

2.4 Research Gap and Contribution of the Study

Significant insights into the legal, criminological, technological, and sociological aspects of the illegal wildlife trade are provided by the body of extant literature. The operation of regulatory institutions like CITES, transnational smuggling networks, and the worldwide organization of environmental crimes have all been thoroughly studied in international research (Challender et al., 2025; Reeve, 2006; UNODC, 2024). Similar to this, a growing number of studies in recent years have emphasized the role of digital communication technologies and social media platforms in the wildlife trade, highlighting the significance of online platforms such as Facebook, WhatsApp, Telegram, and others in the establishment and upkeep of trade networks (Lavorigna, 2014; Xu et al., 2020; Santos et al., 2025). Additionally, cultural studies have demonstrated that in many regions, the trade of songbirds, in particular, cannot be explained only by economic gain; status, tradition, identity, and social belonging also influence these activities (Bezgin, 2021; Fiennes et.al., 2024; Marshall et.al., 2020; Ribeiro et.al., 2019).

Nonetheless, a large amount of current study is focused on certain geographical areas. Although a large body of literature has been produced by studies on Southeast Asia, Latin America, and Africa, there are still few studies on Türkiye. The amount of scholarly information about the trade in songbirds is still quite little, despite Türkiye's great biological richness and its advantageous location between Europe, Asia, and the Middle East. Few studies have been done to analyze the social dynamics of the trade, and most have been done using government databases, media reports, or seizure records (Arıkan et al., 2021; Can, 2025).

Online trading and sociocultural reasons are frequently addressed as distinct research areas, which is another significant gap in literature. While cultural studies tend to focus more on customs, contests, prestige, and identity processes, digital platform studies usually concentrate on technological infrastructure, online networks, and regulatory procedures. But the phenomena that arises at the nexus of these two aspects is the internet commerce in songbirds. Social media platforms function as social places where cultural norms are created, social connections are established, and meanings associated with bird ownership are conveyed, in addition to being the technical instruments that facilitate trading. Despite this, studies in the existing literature that examine these two dimensions together are quite limited.

A corresponding methodological limitation is that a significant portion of the research relies heavily on data produced by law enforcement, government agencies, or conservation organizations. Although this method aids in comprehending the obvious facets of illicit trade, it falls short in capturing the viewpoints of the participants in these networks. There are surprisingly few studies that concentrate on the experiences of actors like bird breeders, bird owners, hunters, sellers, and local communities. Deeper sociocultural theories for the persistence of the songbird trade are challenging in light of this circumstance.

Additionally, there are not many studies in the body of literature that contrast local actors' perceptions with those of professionals. Bird breeders and bird owners may interpret illegal trade in terms of tradition, hobby, cultural heritage, or social belonging, while conservation experts, academics, and government agencies frequently evaluate it in terms of biodiversity loss, species conservation, and legal violations. Conflicting discourses about the wildlife trade result from these disparate interpretive processes. However, there are still very few studies in the literature that look at how these opposing viewpoints arise and interact.

The purpose of this study is to help close these gaps. The study looks at the songbird trade in Türkiye as a process influenced by cultural norms and social meanings rather than just as a legal or commercial activity. Additionally, it seeks to investigate the connection between digitalization and cultural reasons by looking at the function of online platforms in trade networks. By contrasting the viewpoints of local actors and experts on the topic, the study also seeks to understand how various social groups interpret the songbird trade. In order to achieve this, it employs a social constructionist methodology to investigate the various players' definitions of the songbird trade, the meanings they attach to it, and the ways in which these meanings impact their actions. As a result, the study assesses the songbird trade as a social phenomena that is perceived differently by different players rather than just as an

environmental crime or conservation concern. This strategy is anticipated to improve awareness of the sociocultural aspects of wildlife crimes and add to the body of knowledge already available on the songbird trade in Türkiye.

An empirical gap is created by the literature's emphasis on climate, habitat, and Asia-centric macro-level assessments, which leave out the socio-cultural offenders and the "human factor" (Mirin & Klinck, 2021). In addition to being an ecological devastation, the trade in songbirds on cyber platforms is a social act in which local players consistently replicate their own cultural meanings, status views, and competitive dynamics. Therefore, rather of depending just on macro-level statistics, it is necessary to examine the realities that these actors themselves construct in order to comprehend how they legitimize this illegal commerce.

In this regard, Social Construction Theory offers a basic framework for examining how offenders understand the custom of caged birds and the hierarchy among themselves. In fact, the tools provided by this social structure can help us understand how local actors defend and communicate their acts in cyberspace.

3. Theoretical framework: Social Construction Theory

To answer the research questions, this study adopts Social Construction Theory as its theoretical framework. Social constructionism is concerned with how social realities are created, maintained, and legitimized through social interaction rather than existing as fixed and objective facts (Berger & Luckmann, 1966; Burr, 2015). This perspective is particularly relevant for the present study because the illegal songbird trade can be understood in different ways depending on the social, cultural, and professional positions of the actors involved. While wildlife conservation experts may frame the practice as an environmental crime and biodiversity threat, local bird enthusiasts may interpret it as a cultural tradition, hobby, or legitimate social activity. Consequently, Social Construction Theory provides a lens for examining how different actors construct meanings around the same phenomenon and how these meanings shape their evaluations of the problem and its potential solutions.

Depending on their sociocultural and professional circumstances, social actors might frame issues, their causes, moral judgments, and possible remedies in various ways. As a result, a social constructionist viewpoint provides a theoretical framework for examining this variety in meaning-making processes. In order to comprehend how the illegal songbird trade is perceived by local bird enthusiasts in Türkiye as well as by wildlife conservation specialists,

academics, and non-governmental organization (NGO) employees (i.e., experts) working on an international scale, this study examines the phenomenon from this perspective.

As the aim of this study recalls, the objective is to examine how the illegal trade in songbirds is interpreted in the context of cybercrime and behavioral characteristics. In line with this objective, the social constructionist approach provides a suitable theoretical foundation for examining how different actors define the same environmental crime, the reasons they cite, the moral framing through which they evaluate it, and the solutions they deem legitimate. Research questions such as “How do experts and local actors problematize the illegal songbird trade?”, “How do they explain the causes and solutions to the problem?”, and “In what ways do these interpretations differ and why?” are precisely directed at the processes of interpretation that social constructionism seeks to explain. It is therefore possible to comprehend how the actors' interpretations relate to the dynamics of cybercrime and regional cultural practices according to the social constructionist viewpoint.

3.1. Philosophical and Phenomenological Roots

Philosophical works that study the formation of human knowledge and reality constitute the basis of social constructionism. This theory's early roots can be seen in philosophers who maintained that individuals create their own social environments through their own historical deeds. This concept was further refined in later years by Max Scheler's sociology of knowledge, which showed that the knowledge we generate is inextricably linked to the social context in which we live (Social Constructionism - New World Encyclopedia, n.d.).

Furthermore, by contending that even scientific knowledge is not absolute and that rational mind is a social product, examinations of the history of science by writers like Edgar Zilsel have given the constructivist approach a sociological backdrop (Berger ve Luckmann, 1966). As a result, the fundamental tenet of contemporary constructivist theory is that human nature and institutions are jointly formed through a historical process rather than being universally given.

Edmund Husserl's philosophy of phenomenology, and especially Alfred Schutz's application of this philosophy to sociology, were crucial to the development of social constructionism. Husserl argued that human consciousness is never a blank slate and is constantly focused on an object in the outside world, criticizing the gap between the mind and the outside world (Trujillo, 2018). Schutz examined the practical reality that people encounter on a daily basis, which he called the "life-world," by incorporating this phenomenological basis into

sociology. Schutz argues that humans comprehend the world through the idea of intersubjectivity, a common ground of meaning that we share with other, rather than independently (Trujillo, 2018). Because of this, phenomenological sociology provides a basic theoretical framework that enables us to comprehend how people's inner meanings shape social realities through interactions with other people.

3.2. Everyday Practices and Ethnomethodology

The theoretical ideas of phenomenology, combined with Harold Garfinkel's work in ethnomethodology, have evolved into a more concrete examination of human interactions in everyday life. Ethnomethodology examines the everyday methods (ethno-methods) that ordinary people use to maintain social order and preserve a shared sense of reality . According to Garfinkel, massive social structures at the macro level do not shape the individual from the top down; on the contrary, social order is constantly reproduced from the bottom up through the daily practices of ordinary people (Dalua, 2022). Individuals in interaction are constantly engaged in an effort to ensure accountability, that is, to explain their actions to others and make them appear reasonable (Garfinkel, 1967). Consequently, ethnomethodology demonstrates that social rules do not exist independently; rather, people reconstruct social order in every interaction by adapting their behavior to these rules.

3.3. The Social Construction of Reality: Berger and Luckmann

The dialectical model created by Peter Berger and Thomas Luckmann gave social constructionism its most extensive and well-known form. The question of how institutions, which are, in reality, wholly human creations, appear to us as objective, unchangeable, and natural realities is the subject of the authors' groundbreaking 1966 paper. Habitualization, the initial stage of this process, is described as the gradual conversion of regularly performed human behaviors into a conventional pattern. (Berger & Luckmann, 1966). People form these routines to make their behavior more predictable by avoiding the psychological strain of having to make decisions from scratch in every new circumstance. To put it succinctly, the development of habits is the first critical step that allows people to go about their daily lives without having to make difficult choices and establishes the framework for institutions (Dalua, 2022).

The collective adoption of habits by people within a given society triggers the process of institutionalization in construction theory. Institutionalization occurs when people reach a shared understanding of how a task should be performed, and these habits evolve into an

objective set of rules (Meyer & Rowan, 1977). These actions, which initially constitute merely the routine of a group of people, acquire the identity of an institution when they are transmitted to new generations as a universal truth (Berger & Luckmann, 1966). For example, concepts such as education or family are actually the enduring versions of habits that people have mutually developed throughout history (Berger & Luckmann, 1966). . Thus, institutionalization is the fundamental mechanism that enables the random forms of action people create to gradually transform into external and binding social rules over time.

In Berger and Luckmann's theory, the construction of society is explained as a continuous cycle consisting of the stages of externalization, objectification, and internalization. The first step, externalization, involves humans actively creating the social world by projecting their thoughts and actions onto their environment (Berger & Luckmann, 1966). The second step, objectification, is the stage in which this socially constructed world, created by human hands, begins to be perceived over time as an independent, physical reality separate from its creators. In the final stage, internalization, new generations learn this objectified social world through socialization and adopt the society's rules as their own personal truths (Berger & Luckmann, 1966). Through this three-stage cycle, individuals create society through their own actions, while society, in turn, shapes individuals' identities, creating a reciprocal interaction.

Berger and Luckmann's approach is especially helpful for this study since it makes it possible to analyze the illicit songbird trade as a socially constructed phenomenon rather than an obvious environmental crime. Certain understandings of bird catching, trading, and keeping may become commonplace and taken for granted because of frequent encounters within local birdkeeping networks, social media groups, and online communities. Digital environments serve as venues for negotiation, reinforcement, and replication of meanings. Therefore, from a social constructionist standpoint, the study focuses on understanding how various actors create, defend, and contest specific understandings of the illegal songbird trade rather than trying to determine if one interpretation is objectively accurate.

This viewpoint is particularly relevant when discussing cybercrime. Online platforms offer chances for trade, communication, and information sharing that could support illicit wildlife activities. These platforms also serve as venues for actors to create stories about duty, tradition, legality, legitimacy, and conservation. A deeper understanding of the representation and negotiation of the illicit songbird trade in digital environments is made possible by examining these conflicting constructions.

Four analytical dimensions that are developed from the research questions and the literature on social issue formation are the focus of the empirical analysis, which is based on theory of the social construction of social problems (Berger & Luckmann, 1966). The study first looks at problem definitions, specifically how various participants describe and define the illicit songbird trade. Second, it investigates causal explanations, emphasizing how participants account for the trade's beginnings and continuation. Thirdly, it looks into moral assessments, analyzing the normative judgments and values that actors associate with the activity. Lastly, it examines suggested remedies and interventions to determine how various groups think the problem should be resolved. These aspects provide the essential understanding of comparing the viewpoints of local bird lovers and direct the theme analysis of expert interviews and internet debates. These dimensions guide the thematic analysis of expert interviews and online discussions and provide the necessary comprehension of the comparison of the perspectives of local bird enthusiasts and international experts.

4. Methodology

This chapter, which bridges the gap between the study's theoretical framework and the empirical reality on the ground, presents the roadmap followed to uncover the sociocultural and criminological dynamics underlying the illegal trade in songbirds. In this regard, the chapter comprehensively discusses the philosophical and practical justifications for the qualitative design (methodological choice), the data collection process involving international and local actors, and the study's ethical boundaries along with the researcher's positioning.

4.1. Choice of methodology

This study adopts qualitative research design. The methodology of this research utilizes Robert Entman's Framing Approach and the principles of Behavior-Centered Design (BCD) as methodological tools. Both approaches are employed as complementary methodologies to analyze how illegal wildlife trade and songbird competitions are interpreted by different social groups.

A key strength of the data collection process lies in the natural conceptual overlap between Entman's Framing functions and the 'Frame Phase' of Behavior-Centered Design (BCD). Both approaches fundamentally investigate the same core questions to deconstruct a phenomenon: *What is the exact problem? Who are the specific actors involved? And why do they engage in this behavior?* Because of this inherent similarity, the interview questions were designed to naturally satisfy the analytical requirements of both concepts

simultaneously. Therefore, without claiming to construct a new integrated methodology, this study practically utilized this natural alignment. For example, a single interview question regarding the motivations of bird trapping simultaneously provided data for Entman's 'Problem Definition / Causal Interpretation' and BCD's behavioral context.

A comparative design was selected as the study design, and a qualitative research method was used as the main strategy for gathering the empirical data (Bryman, 2016). The main justification for this decision is the complexity of the phenomenon being studied, which is the illicit gathering of live animals from the wild and their online marketing. This phenomenon includes sociocultural dynamics, legitimization strategies, and motivations that are difficult to fully understand through statistical data alone. As a result, other techniques like surveys or quantitative data analysis would not be adequate to fully capture how participants use cyberspace as an instrument, justify their behavior, and oppose behavioral change efforts. The most effective approach for capturing the ontological distinctions between the macro-level perspectives of experts creating global-scale policies and the micro-level experiences of local actors who are both the direct subjects and objects of these policies has been determined to be comparative qualitative analysis.

Social constructionism serves as the study's epistemological cornerstone (Burr, 2015; Creswell & Poth, 2018). This perspective holds that reality is a subjective phenomenon that people construct and maintain via social interactions and cultural practices rather than an objective and external phenomenon. As a result, comprehending a phenomenon like the illicit trade in songbirds requires more than just calculating its statistical aspects; it also requires a comprehension of the participants' interpretations, justifications, and cultural contexts. Because numerical data does not adequately reflect the meanings and realities that people construct, this epistemological attitude requires the use of qualitative methodologies rather than quantitative methods. Hence, semi-structured in-depth interviews were selected as the main data collection technique (Bryman, 2016; Kvale & Brinkmann, 2009). This approach allowed the participants (mostly Turkish songbird lovers) to speak in their own voices and express their own life-worlds, rather than having a singular pre-determined objective reality imposed upon them; as a result, the research directly reflects the varied meanings and cultural realities that participants associate with this practice.

In this study, the data collection method is based on the use of Robert Entman's Framing approach not as a theoretical framework, but as a primary methodological tool. According to Entman, framing is a process that determines how a problem is defined, how its causes are

explained, how moral judgments are made, and how solutions are proposed by highlighting specific aspects of a text. All data collected in this study have been structured according to Entman's four fundamental analytical layers. Additionally, the study's analytical framework is based on the four dimensions of Entman's (1993) framing approach: problem definition, causal interpretation, moral evaluation, and proposed solutions.

4.1.1 Entman's Framing

Robert Entman's methodological contribution is the specification of four distinct functions that a frame performs within a text. For effective framing, these functions must be articulated in accordance with a sequence of cultural logic. Such connections are maintained by traditions and cultural norms rather than by rational logic (How to Evaluate Media Frames, n.d.).

1) Problem Definition

The initial stage of the framing process involves identifying which event or situation constitutes a problem. Frames specify the actions of a causal agent at this stage and assess the associated costs and benefits in relation to cultural values. The definition of the problem serves as the foundation for all subsequent reasoning processes, as the initial framing of an issue determines the trajectory of the search for solutions (Entman, 1993).

2) Why Diagnosis (Causal Interpretation)

After the problem is identified, the second essential function of the framing, is to determine responsibility for the issue. This stage addresses the attribution of blame or credit. The diagnostic function frequently exposes underlying biases among communicators, as divergent causal explanations may be offered for the same problem.

3) Moral Evaluation

The moral judgment function entails conducting an ethical assessment based on the defined problem and its identified causes. At this stage, frames determine whether causal agents and their actions align with or violate prevailing social norms, values, and principles. Typically, this function appeals to the audience's emotions and identity values rather than relying on rational arguments. Moral phase can either polarize or unify public discourse (Entman, 1993).

4) Treatment Recommendation

The fourth, outcome-oriented function of the framing is to propose solutions that address the defined problem and to predict the potential effects of these solutions. Solution proposals are inherently persuasive, as they direct the audience by presenting a specific action plan as the most logical course. The manner in which a problem is defined and the attribution of its cause inherently constrain the range of proposed remedies.

To address ecological destruction, criminological dynamics, and complex cybercrime networks, it is necessary to move beyond approaches that rely exclusively on bans and technological surveillance. Human behavior fundamentally shapes the relationship with nature; thus, effective solutions to environmental challenges require the transformation of behavioral patterns. Within this context, the Behavior-Centered Design (BCD) methodology developed by Rare.org provides an innovative design that integrates behavioral sciences with design thinking, surpassing the limitations of traditional conservation policies (Behavior Change, 2023).

4.1.2. The BCD and the Frame step

BCD is an eight-step sequential process that examines how an individual's psychological state and decision-making mechanisms are influenced by the interaction of sociocultural and environmental contexts (Rare's Center for Behavior & the Environment, 2024). The steps are as follows:

1. Frame (Framing): Defining target behaviors, key actors, and environmental context.
2. Empathize: Conduct qualitative research to understand the target audience's motivations, the obstacles they face, and their experiences.
3. Mapping: Linking the research data obtained with behavioral insights and formulating hypotheses.
4. Ideate (Generate Ideas): Develop potential solutions that will drive behavioral change through brainstorming, based on the hypotheses generated.
5. Prototyping: Creating small-scale, testable prototypes of selected solution ideas.
6. Testing: Testing prototypes on the target audience to gather feedback.
7. Launch (Implementation): Implementing the successful solution on a large scale.
8. Assess: Measure and monitor the impact of the solution using predefined indicators.

This research applies the Framing step, the initial and foundational step of the Behavior Change Design (BCD), to the songbird trade crisis through expert interviews. The Framing phase involves delineating the boundaries of complex and ambiguous environmental problems, such as illegal wildlife trade, to facilitate their translation into actionable strategies. Its primary objective is to identify specific target actors and behaviors that are likely to generate the most significant and measurable impact on environmental outcomes (Thulin, 2020).

The study employs expert interviews to systematically map the Framing phase using four core matrices, specifically Problem-Behavior-Actor Mapping:

1. **Precise Definition of the Environmental Problem:** The primary concern extends beyond the disappearance of birds. It encompasses the illegal trade facilitated by online platforms, the exploitation of economically disadvantaged rural communities, the heightened risk of zoonotic diseases, and the illegal gambling economy associated with bird races, all of which contribute to the depletion of forest ecosystems.
2. **Identifying Core Actors:** The individuals directly responsible for the problem or capable of implementing a solution are diverse and not homogeneous. These actors include local hunters in rural areas, upper-class songbird contestants, illegal bookmakers, shipping companies, and cyber intermediaries who manage social media groups. The power dynamics within the system for each group of actors is analyzed in relation to diversity, equity, and inclusion principles.
3. **Analysis of Current Behaviors:** What actions are currently being undertaken by the actors involved? What factors drive the preference for illegally captured wild birds over those bred legally in captivity? To what extent do the pursuit of status, the belief that wild birds possess superior singing abilities, or the convenience of online purchasing influence this behavior?
4. **Identifying the Target Behavior:** The study aims to achieve outcomes such as encouraging the purchase of captive-bred birds from certified, sustainable producers rather than wild birds of unknown origin from online platforms. Additionally, the study seeks to promote the transition of local hunters from bird trapping to employment as guides.

Upon completion of the framing process, the problem is not defined only in terms of which bird species are at risk, but also by identifying the individuals responsible for these actions and the criminological and sociological motivations underlying their behavior. This diagnosis serves as the basis for applying six behavioral levers, with particular emphasis on Social

Influence, Choice Architecture, and Emotional Appeal, in the subsequent stages of Empathize, Map, and Ideate.

In summary, the Framing phase aims to lay the groundwork for actionable strategies by defining the scope of complex environmental issues, such as the illegal wildlife trade. During this phase, we seek to answer five key questions: What is the problem? Who is contributing to it? What are the actors currently doing? What are they not doing? What do we want them to do? In this study, BCD's Framing phase was used not as a data collection tool, but as a structuring tool directly answered by the researcher based on empirical findings from interviews. The joint use of these two designs stems from a deliberate choice: the fact that both Entman and BCD center the concept of "frame" allows for an overlap between the two approaches, both at the conceptual level and in terms of their shared objectives.

The semi-structured interview guide was designed and implemented to uncover the study's primary objective: "how the illegal trade in songbirds is framed in the context of cybercrime and behavioral characteristics?" The interview questions were not selected at random; rather, each question was matched to directly address the study's four core research questions, meaning that Entman's framing was used as the basis at this stage.

4.2. Data Collection and Informants

Purposive sampling was used in the selection of the sample, and two distinct main groups were identified. The first group comprises 11 international experts working in the fields of wildlife crime, conservation biology, green criminology, and behavioral change at the global level. The primary reason for selecting expert participants on a global scale is the near absence of academic or professional experts in Türkiye who specifically focus on the illegal trade of songbirds and the criminological dimensions of this issue. The second group consists of 8 Turkish male participants who are actively involved in Türkiye's bird-keeping culture, are familiar with the practice of capturing birds from the wild, participate in songbird competitions, or serve as judges in such competitions. A total of 19 interviews, each lasting approximately one hour, were conducted. Written consent for the interviews was obtained from all participants. The interviews were recorded using digital audio recorders and subsequently transcribed. To ensure reliability, a table detailing each participant's area of expertise and background was prepared (Appendix 3); reviewing this table is recommended before proceeding to the findings and discussion sections.

A synchronized interview schedule was followed throughout the data collection process. Interviews with experts were not conducted in blocks before or after those with local actors; rather, interviews with both groups were conducted in a mixed order within the same timeframe. This strategic choice was made to minimize the impact of any biases or preconceived notions the researcher might have developed from one group on the questions posed to the other group.

Eleven fundamental questions were posed to participants in order to gauge their overall impression of the problem, the behavioral change dimension, and the cybercrime dimension. The 11 key questions that participants were asked were not chosen at random; rather, they were chosen to elucidate particular topics and categories that were employed in the study. For instance, Entman's "Problem Definition" and "Moral Evaluation" stages directly benefit from questions on participants' definitions of the practice of bird trapping. Appendix 1 (Questions of the Experts) contains the questions posed to the experts.

Given the sensitive nature of the subject, the questions for the Turkish participants were carefully crafted to avoid causing any discomfort and were asked in Turkish to help participants understand and answer them more comfortably. The English translation of these questions is included in Appendix 2 (Questions for the Turkish participants).

Furthermore, when the views of experts addressing different contexts or various dimensions of the issue are cited, the similarities and differences between these views are examined comparatively in the discussion section. Where appropriate, the information provided by individuals implicated in the identified criminal elements has been compared with expert opinions; points of overlap and divergence have been analyzed. This comparative approach enables a more comprehensive assessment of both the expert perspective and the reality on the ground.

4.3. Ethical considerations and positionality

The sensitive nature of the topic addressed in this study requires special care in terms of both ethics and positioning.

Positionality

In terms of researcher positioning, I am a 27-year-old Turkish woman serving as the researcher for this study. I have no prior personal or social ties to the culture of birdwatching; this has allowed me to approach the field with a completely external perspective and has minimized my preconceptions regarding the subject. On the other hand, being Turkish has

significantly strengthened the communication I established with local participants. Our shared language and cultural background allowed participants to express themselves more comfortably, which in turn enhanced the depth and sincerity of the interviews.

Nonetheless, this study takes a social constructionist stance and is based on semi-structured interviews. Instead of asserting complete objectivity in qualitative research, this theoretical paradigm places the reflexivity principle at its core. As a researcher, I am conscious of the fact that I am not only an external observer, but also a filter for the interpretation of the data once it is collected and analyzed. I acknowledge that the participant and I work together to co-construct the meaning and knowledge that emerges from the interviews. Thus, the aim of this study is not to argue for a particular position, but rather to openly represent how different actors experience this phenomenon and construct their own realities, acknowledging the influence of my own personal and academic positionality on the research process.

Ethical considerations

From an ethical standpoint, the practices described by local participants, such as capturing birds without permission, selling them, or organizing unregistered competitions, constitute criminal offenses under national law. For this reason, it was essential to establish a high level of trust during the interviews. All participants were guaranteed complete anonymity; all data containing location information or names that could reveal their identities has been removed from the text. Furthermore, the tendency of participants to present their illegal actions to the researcher in a more ethical or legally compliant light than they actually were, a phenomenon known as social desirability bias, constitutes one of the study's fundamental limitations.

This study was conducted in accordance with the fundamental ethical principles applicable to qualitative research. Particular attention was taken to informed consent, confidentiality, and the responsible handling of sensitive data.

First, all participants in the semi-structured in-depth interviews were provided with detailed information in advance regarding the study's purpose, scope, and process. Informed consent was obtained from each participant, and it was clearly stated that their participation was entirely voluntary. Participants had the right to withdraw from the study at any stage without having to provide a reason.

To ensure confidentiality and anonymity, all personally identifiable information was removed from the interview data. Pseudonyms were used in the transcripts and throughout the analysis process to protect participants' identities. Audio recordings and written transcripts were

stored securely and were accessible only to the researcher. The data collected was not shared with third parties and was used solely for academic purposes.

Given that the research may involve experts expressing their views on sensitive or controversial topics, every effort was made to minimize the risk of harm. Participants were not required to answer questions that make them uncomfortable, and leading or biased questions were avoided during interviews.

If it was possible to conduct interviews with individuals linked to criminal activities, additional ethical precautions were taken. The safety of both the participant and the researcher was a top priority. Information obtained from such participants was handled with the utmost care, and the disclosure of any data that could lead to legal or personal harm was avoided. The purpose of the research was not to expose individuals, but to understand broader perspectives and narratives.

During the analysis process, Robert Entman's framing method was applied in a reflective and transparent manner. The researcher was mindful of their own potential biases, particularly when interpreting elements such as problem definition, attribution of causality, moral evaluation, and proposed solutions. Care was taken to ensure that participants' views were represented accurately and fairly.

To sum up and to present validity, in line with the qualitative nature of this study, specific strategies were implemented during the data collection and analysis processes to enhance the study's validity and credibility. First, to ensure the study's conceptual validity, a complex topic such as the illegal trade in songbirds and its cybercrime dimension was analyzed in accordance with Robert Entman's Framing Method, a well-established approach in literature. To prevent my own biases as a researcher from influencing the interview process, interviews with global experts and local birdkeepers were conducted not in blocks but in a mixed order (simultaneously) within the same timeframe; this prevented impressions gained from one group from influencing the questions asked of the other group. In addition, designing the interview questions in Turkish in a way that was appropriate for the local participants' cultural background and would not make them feel uncomfortable allowed the participants to express themselves in the most natural and accurate way. Given the sensitive and potentially illegal nature of this topic, the tendency for participants to present themselves as more ethical than they actually are (social desirability bias) was considered. To minimize the data

distortions this might cause, participants were guaranteed full anonymity, thereby ensuring the accuracy of the collected data and the quality of the study.

This research was conducted in accordance with relevant institutional ethical guidelines, and, if necessary, approval from the ethics committee can be obtained prior to the start of the data collection process.

During the preparation of this work the author(s) used QuillBot to paraphrase and improve the clarity of the text and used Gemini in order to identify relevant references. After using this tool/service, the author(s) reviewed and edited the content as needed and took full responsibility for the content of the published thesis/article/dissertation.

5. Findings

In this section, the empirical data obtained from the interviews are presented under thematic headings designed to address the research questions. The data are not presented merely as verbatim transcripts of the interviews; rather, they have been organized by summarizing the common themes, contradictions, and framing practices that emerged in the participants' statements.

The results presented in this section are organized according to the four dimensions of Entman's (1993) framing approach: problem definition, causal interpretation, moral evaluation and proposed solutions. These four categories were used as pre-set thematic headings which formed the analytical framework of the study from the beginning. The interview data were coded in these categories and the commonalities, differences and contradictions in the discourses of the two actor groups were systematically analyzed under each heading. This structure directly answers the research questions and shows how actors understand the illegal trade in songbirds in different ways as predicted by the social constructionist perspective since there are differences in a socio-cultural way. The results are presented under two major headings: first, the framing practices of global experts, and second, the framing patterns of local actors in Türkiye. Entman's four categories have been followed in both headings in order to provide a consistent analytical framework.

5.1 The Experts' Perspectives

Problem Definition: General Issues, Cybercrime, and Behavioral Change

Experts have identified the problem from three different perspectives: environmental, cultural, and legal.

The illegal songbird trade was not framed by a single explanation by the majority of experts. Experts have continuously stressed that cultural, economic, social, and ecological variables function as an interrelated system, even if cultural activities are often highlighted. Experts consistently emphasized that the illegal songbird trade cannot be reduced to a single explanatory factor. Although cultural traditions remain central, they argued that the trade today is shaped by the interplay of cultural norms, economic incentives, legal dynamics, and ecological pressures. Several experts highlighted that what was once a small-scale cultural practice has transformed into a large-scale, multi-layered phenomenon with significant environmental consequences. As E4 explained:

There has been songbirds, keeping of songbirds is cultural and songbird competitions are cultural. However, the scale of the birds is not like it used to be the scale of the trade, I mean it involves far more species than it did in the past. So it is hard to say that it is all cultural still, because a lot of it has changed. And in the past, in the distant past, while it was cultural and everything that was on a small-scale and wasn't threatening species like it is now. So now the songbird, trade and the songbird competitions are driving species to extinction. So that you can call that call. That's cultural, legal and environmental. It is everything species like the strawheaded bulbul used to be in Myanmar, Thailand. Down through Malaysia, Singapore and Indonesia.

(2026)

This holistic view was echoed by E9, who similarly stated that the issue is simultaneously “environmental, legal, [and] cultural.”

The illegal trade in songbirds is not a legal or cultural issue, but a complex environmental and social crisis that endangers the integrity of ecosystems, experts say. They stress that this trade has gone to the extreme of leaving local bird populations completely empty of birds, especially in Asia and South America, resulting in the “Silent Forest” syndrome. E10 has used the same term, and his statement makes this situation clear: “In Indonesia we have many forests that are completely silent, with no songbirds. This example illustrates that demand-driven exploitation produces areas in nature where the sound of birds can no longer be heard.

Experts also frame this trade as a serious animal welfare crisis beyond ecological collapse. They point out that the rates of mortality are very high due to poor conditions during capture and transport. E4 describes the situation as follows: “The mortality rates behind this trade are very high... there are many ethical issues.” Similarly, E2 states that the problem is essentially “an environmental, animal welfare and cultural problem” and the criminal aspect is a result of the confluence of environmental harm and cultural practices. Ultimately, experts view the illegal songbird trade not as a singular issue, but as a multifaceted crisis driven by the interplay of environmental destruction, cultural demand, and ethical violations.

When looking at the extent of cybercrime there is a division between those experts who are hesitant to fit this sort of activity into the traditional cybercrime mould (e.g. data theft or system disruption) and those who are insistent on using the term cybercrime. Experts are divided on whether the online component of the illegal songbird trade constitutes a cybercrime. Other experts are more cautious, saying the activity doesn't neatly fit into traditional categories of cybercrime such as data theft or system intrusion. As E2 points out, the “different types of expertise” required in the field mean the official designation of this trade as a cybercrime could lead to unintended consequences, as the definition of cybercrime today does not take these dynamics into account. Regarding the more cautious stance, E2 notes the following:

I think that, from one side, if we call it a cyber crime, we might, you know, get it more attention, because the cyber crime, it is a hot topic, but from the other side, if we label formally this type of trade as a cyber crime, then actually we might put ourselves worse off, because actually the people then investigating them and the type of resources that we'll be receiving will be fewer rather than more, because you need other types of expertise to tackle them properly, okay. So, I think that also like cyber crime doesn't make too much sense, you have like financial crimes, you have person-based crimes, you have, you know, so I think it is more about dismantling the label that we currently have of cybercrime, rather than having other things like attached to it, try to give it relevance. (2026)

Other experts, while acknowledging that digital platforms play a central role in facilitating trade, emphasize that this cannot be viewed as purely cybercrime. E8 notes that the shift from physical bird markets to social media, e-commerce sites, and private messaging groups has made transactions more covert and difficult to track. As E8 points out, traders now operate on closed networks and use coded language, which makes detection more difficult; however, the online environment merely facilitates trade and does not in itself turn the activity into a cybercrime. E8 says that:

In the past, bird trade in Indonesia, I am talking Indonesia context, in the past, bird trade in Indonesia was more localized or visible. If you visit the bird market in Indonesia, you can see it is easy to find the songbird, but sometimes the protection animal in the bird market in Indonesia. But now, I think, 10 years or maybe 20 years ago, the wildlife trade shifted to social media, e-commerce, or sometimes private messaging groups like Facebook. And from our observation, many transactions happen in closed networks, and it is difficult for us to observe their activity. And also in Indonesia, for the context of songbird trade, for the traders and also the consumers, they use code language, and it is difficult to detect the process. When they transfer the money or maybe they request the animal for trading. So yeah, I think this is not a pure cybercrime. Digital platform making for the trade is quite easy. (2026)

Although professionals recognize the digital dimension as a key facilitator of this trade, they generally hesitate to strictly classify the activity as a cybercrime. A different set of specialists adopts a more nuanced stance, admitting that the online component of the trade has aspects of cybercrime but contending that it cannot be fully categorized as such. While acknowledging that the action has elements of cybercrime, E3 highlights that its significant physical component makes it impossible to classify it as a strictly digital crime.

I am not sure. I mean, yeah, it definitely has cybercrime components by the definition of cybercrime, but to purely call it a cybercrime, I don't think so just because the environmental aspect, right, at the start of the chain is, yeah, it is probably enough to

make it not a purely cybercrime, but yeah, sure, the characteristics of cybercrime.

(2026)

Consistent with this nuanced perspective, E5 points out that while a large portion of the trade has moved online, a substantial amount of activity continues to occur directly within physical local areas. While some commerce "still takes place directly within local communities," as E5 notes, online channels are increasingly propelling and growing this industry. Because the activity's fundamental drivers and consequences exist largely outside the digital sphere, experts define it as a hybrid offense rather than a traditional cybercrime, even though it heavily relies on online mechanisms.

Several participants explicitly classified the illegal online trade in songbirds as a form of cybercrime. Their responses indicate that the use of digital platforms is considered an integral component of the offence, even though wildlife trafficking itself remains the underlying criminal activity. For these participants, the online environment is not merely a communication tool but a key mechanism through which illegal wildlife trade is facilitated.

As E4 stated, "Yes, it should be classified as a cybercrime. The wildlife trade in general, but the songbird trade alone should be classified as cybercrime."

Also, E9 argued that "illegal trade in wildlife through the internet is a cybercrime," while also emphasizing that "the basic violation is still the violation of the wildlife laws and/or other laws that may apply."

Trade, which was limited to local markets in the pre-internet era, has taken on a global character thanks to Facebook groups, e-commerce sites, and end-to-end encrypted WhatsApp networks. The digital dimension is framed as a catalyst that eliminates intermediaries between sellers and buyers, obscures the visibility of criminal activity, and radically accelerates illicit trade. E1, however, takes a more cautious stance, warning that officially labeling this trade as a cybercrime could divert investigative resources and attention away from the issue.

I think that, from one side, if we call it a cybercrime, we might, you know, get it more attention, because cybercrime crime, it is a hot topic, but from the other side, if we label formally this type of trade as a cybercrime, then actually we might put ourselves

worse off, because actually the people then investigating them and the type of resources that we'll be receiving will be fewer rather than more, because you need other types of expertise to tackle them properly, okay. So, I think that also, like, cybercrime doesn't make too much sense. You have, like, financial crimes, you have person-based crimes, you have, you know, so I think it is more about dismantling the label that we currently have of cybercrime, rather than having other things like attached to it, try to give it relevance. (2026)

From a behavioral change perspective, experts identified cultural norms and rationalization processes as key factors sustaining the illegal songbird trade. Participants emphasized that bird keeping and bird competitions are often perceived not as criminal activities but as culturally embedded practices associated with identity, tradition, social status, and livelihood. As a result, consumers frequently justify their involvement by minimizing the perceived harm of their actions or framing them as socially acceptable behaviors.

These explanations, according to a number of specialists, are ways for people to neutralize the negative effects of animal exploitation. According to E2, participants frequently use cultural customs, financial necessity, or the conviction that birds are plentiful and so not seriously affected as justifications for their actions. E2 claims that these arguments serve as neutralizing strategies that enable people to tolerate potentially hazardous behaviors.

In the same way, E7 emphasized how cultural identification and a strong bond with the birds are often used by bird keepers as justifications for their behavior. Participants were described as seeing bird keeping as a significant part of their cultural history and as a custom that has been passed down through the generations. They frequently resolve this contradiction by highlighting the care they give the birds while they are in captivity, even if they are aware of the mortality linked to bird capture and trading. This illustrates how perceptions of harm can be countered and trade participation maintained by utilizing cultural norms and emotional attachment.

This group's experts rejected explanations based on ignorance or lack of awareness. Rather, they contended that most people engaged in the illicit songbird trade are aware that what they are doing is against the law, but they consider the crime to be minor and so not morally

problematic. These participants claim that the trivialization of wildlife crime is the problem rather than ignorance.

E4 highlighted that many people engaged in the trade are aware of illegality. According to their personal experiences, most people involved in bird trafficking are aware that their actions are prohibited, but they don't seem to be deterred from participating because they believe there is little chance of repercussions.

Aligning perfectly with this assessment, E10 argues that perpetrators routinely normalize their actions, feeling no guilt even when they are fully aware of the legal prohibitions. The participant further noted that this tendency to minimize the seriousness of wildlife crime can extend beyond offenders themselves, as some legal actors also frame such offenses as minor violations rather than recognizing them as criminal acts. This normalization contributes to the perception that wildlife trafficking is a low-priority offense and reduces the deterrent effect of legal sanctions.

Even those who know that it is illegal will not feel guilty. I will see this as quite normal. And yeah, they won't have any doubts about doing it. But even the public defenders sometimes here, if you, if we catch, for instance, illegal traders, we protect species, and they are caught by the police brought to justice. Then, sometimes the legal defender. [...] "This is just a small violation". This is not a violation. This is a crime (E10,2026).

There is no one explanation, according to a number of specialists, for how those engaged in the songbird trade view or defend their behavior. Instead, perceptions of illegality and the excuses used to rationalize participation vary according to the individual's role in the trade, their motivations, and the social context in which they are questioned.

E3 emphasized that responses are often shaped by the relationship between the respondent and the person asking the question. According to this participant, individuals may openly acknowledge that their actions are illegal when speaking to trusted individuals, particularly when economic necessity is involved. However, when speaking to researchers or government representatives, they are more likely to frame their behavior in terms of cultural traditions and

longstanding practices. This suggests that narratives surrounding wildlife crime are strategically adapted to different audiences.

Furthermore, E5 emphasized significant distinctions between the actors engaged in the trade in a similar manner. Specialist hunters were characterized as being driven by personal interest or passion, while subsistence hunters were more inclined to defend their involvement by citing economic need and restricted livelihood choices. On the other hand, it was noted that buyers and bird caretakers presented their engagement as a harmless pastime rather than a criminal enterprise. E5 claims that although bird keepers are typically aware of legal limitations, they frequently do not view their activities as illegal in the same manner as trappers. These results show that opinions about accountability and criminality vary throughout the profession and are influenced by a person's position within it.

According to several scientists, economic incentives alone cannot adequately explain participation in the songbird trade. Rather, they highlighted how deeply ingrained customs, social standing, and cultural identity influence people's participation in the trade. According to this viewpoint, owning birds is frequently seen as a socially acceptable activity that enhances a person's sense of identity and belonging rather than as a crime.

Participants emphasized that owning and raising birds is linked to social recognition and prestige in certain groups. Legal restrictions alone may not be sufficient to change behavior because owning a bird may be seen as a status symbol and a sign of accomplishment. People often view bird keeping as a hobby, a passion, and a recognized cultural tradition, according to one expert.

In similar fashion, E1 contended that participation in the transaction is not necessarily motivated by monetary benefit. Alternatively, people could be inspired by a feeling of belonging, a desire to establish a connection with the natural world, and the satisfaction that comes from successfully rearing and showcasing birds. These results imply that cultural and symbolic values are important in maintaining involvement in the songbird trade, which may restrict the efficacy of initiatives that just use financial incentives or legal deterrence.

Identifying the Causes: General Issues, Cybercrime, and Behavioral Change

Experts' causal analyses focus on the intersection of economic desperation and cultural demands. It is emphasized that the primary motivation of local poachers at the lowest level of the supply chain is poverty and the lack of alternative sources of livelihood (E2, E3, E8, E9). E9 specifically emphasized the following:

Obviously there's the supply side where people, they do it because they need to earn money. It is very often very poor countries where there are not a lot of opportunities for people to make their living. It is the poorest people that are often involved in the trapping of songbirds. So for them, it is a way of living, of feeding their children, of sending their children to school. I would say those are the main drivers when it comes to the supply and the demand. But then the inability to stop it has a lot to do with lack of priority, lack of interest, lack of understanding of the impacts of songbird trade, with law enforcement agencies and with governments involved. (2026)

Another perspective that builds on E9's recent remarks identifies the failure of law enforcement agencies at the national and international levels to prioritize wildlife crimes (particularly those involving small species such as birds), the absence of deterrent penalties, and inter-agency corruption as institutional causes of the crisis's chronic nature. E4 noted the following:

In some countries, these laws are better than others. But enforcement, when it comes to songbirds, is a real problem; very few countries prioritize wildlife trade. At all. As a serious crime, let alone something like songbirds; if it was an elephant, okay, but it is a songbird. And a lot of law enforcement agencies couldn't care less or don't have the capacity. Also, you've got to remember in a lot of these countries. (2026)

In addition, it has been noted that the main driving force behind these poachers' activities is the insatiable demand from urban or global buyers for rare songbirds (E3, E4, E8, E9). E8 explicitly stated the following on this point:

If we look at the root causes, I think in the worldwide demand is really the main driver of the illegal trade. Yeah, as long as people continue to buy these birds, there will always be supply. And also in the area we are working, we also meet the local trappers, meet with the middlemen. (2026)

The lack of oversight on digital platforms and the reluctance of technology companies to take responsibility are cited as reasons for the proliferation of this activity in the cyber domain. E7 notes that while technology companies (particularly Meta) possess the technological capability to monitor illegal activities, they deliberately turn a blind eye to these illegal posts solely to avoid reducing engagement metrics and user traffic, and states that E6's claim that companies are doing everything in their power to stop illegal wildlife trade is inaccurate. As an example, the author points out that platforms capable of immediately censoring the word "abortion" yet ignoring complaints about illegal bird trade exhibit hypocrisy.

The hypocrisy when they say, "Oh, we cannot moderate all those different illegal wildlife groups," but they can moderate anytime that there's the word abortion that comes up in a message and it doesn't make sense and so if you can do that if you can moderate the abortion and block people's accounts and all of that you can find the illegal wildlife trades also because the illegal wildlife groups are often reported I mean that's that's the thing is that you can report a group 100 million times but Meta won't do anything about it so it is it is just it doesn't make any sense and what is clear is that it is simply not a priority for them. (E6, 2026)

It has been observed that algorithms create an "echo chamber" effect by constantly exposing bird enthusiasts to similar content, thereby keeping demand consistently high. It is noted that, as a result, people filter out information that does not align with their views (like this trade is harmful) and are exposed only to content that reinforces their beliefs. E1 states that:

[...] actually love birds, or something like that. So it is more about new evidence suggesting that actually birds are suffering from this. We need to change the market or to work with them if you want to change culturally the perspective. Otherwise you create this type of fraction, where people tend to reject evidence because it is really part of how they build their self-identity, both individual and in-group identity in these online communities, where they become kind of echo chambers (2026).

Furthermore, the partial anonymity provided by the internet allows people to engage in this activity without fear of being caught. In this regard, several experts (E2, E3, E8, E11) mention coded messages, code names, and even a code language. E11 states that

There's a lot of ways they they work around the face of policies, but then, like, for example, using different different names, or even using code names for different animals that are, you know, that cannot directly be be connected to to those species names. And then the actual transactions or the negotiations, they usually in the private, private chats, or like, you know, through WhatsApp, or whatever, that sort of way. But I mean, it is still like, you can easily go on Facebook and find groups that are like opening Sunday. (2026)

At the behavioral level, the root cause is that animals have ceased to be ecological entities and have become commodities driven by the pursuit of artistic or prestige-seeking motives. As seen in redfin finch breeding, the deep sense of pride and belonging that a bird's victory in a competition brings to its owner is cited as the strongest psychological motivation sustaining the illegal trade. People's failure to recognize the harm their cultural practices inflict on nature (or their disregard for such harm) is the source of behavioral resistance; in this regard, a form of apathy is evident.

At this point, E1 states the following:

The breeders realized that the [Red Siskin] is very beautiful [...] and have a very organized and very important community of breeders that have this competition of beauty. [...] It is incredible the commitment these people have, the love they have for their species, something that was important for us to discover. Because at the beginning, [we thought] they are the bad guys, they only want to profit with them. [...] But the people that are involved in this breeding and competition, they have a very knowledge for the species, they have a very love for species, they really care for this animal, and they have a very high sense of pride, of reconnections, when they feel proud when 'this bird that I breed by myself won this prize'. [...] When I say they are

proud, it is not the proud of people that have money, it is the proud of people when you accomplish something important to you. [...] Their motivations are not profit. Their motivation is reconnection, interest for this species, it is belonging to a community, in this case, the community of breeders (2026).

Ethical Review

All experts argue that an ethical assessment must be conducted. However, the examples provided in the responses fall into two main categories. Some experts (E1, E2, E4, E9) view the loss of biological diversity and the death of thousands of birds due to suffocation or stress during transport as a situation that is highly unethical and morally reprehensible. E4 emphasizes three points in this regard and states:

There's two things. One is what three things. One is ethics relating to legislation. Why is it acceptable for people to be breaking the laws and for law enforcement agencies to be ignoring it? And for online platforms like you mentioned to continue selling these animals who is it ethical to keep animals? Mortality rates behind the trade are enormous, and people aren't aware of that. So there's a lot of ethical questions. There. And is it ethical for people to be profiting from illegal wildlife? (2026)

However, it is evident that experts adopt a nuanced approach in their moral judgments. Labeling a poor villager who hunts birds in the forest to support his family as immoral appears to be a situation that warrants ethical consideration. E6 illustrates this by citing an example of behavioral change:

If you're doing behavior-centered design right, and if you're having a behavioral campaign that is being done ethically, you are not going into a community to try to change a behavior. It is unethical for a random nonprofit to enter a community and say, you all are participating in the illegal wildlife trade. We're going to arrest all of you, or we're going to report all of you to the authorities. You're doing something really wrong and you're terrible people. That's just not going to work. It is also wrong

for a community to be like, ‘hey!, we're in this community now and we're going to make sure that there's no [...]’, for an NGO to enter a community and say, we're going to make sure there's no illegal wildlife trade. Maybe that will work for a little bit, but if the NGO ever leaves, it won't lead to a lasting solution. So not only is it unethical, but it is also just not going to work (2026).

Recommended Solutions: General Issues, Cybercrime, and Behavioral Change

Enforcement-based strategies alone are unlikely to be adequate to combat the illegal songbird trade, according to a number of specialists. Participants stressed that when cultural norms, social pressures, personal identities, and economic incentives continue to encourage involvement in the trade, legal fines and harsher penalties frequently fail to change behavior. Therefore, the underlying social and behavioral factors that sustain demand and involvement must be addressed in order for interventions to be effective.

In particular, E5 emphasized the necessity of integrating human behavior insights into conservation and crime prevention tactics. This participant argues that legal fines are not always effective deterrents because certain actors may not perceive a significant danger connected with their acts, and social reasons may outweigh worries of prosecution.

E6 and E11's answers likewise mirrored this viewpoint, emphasizing that combating the songbird trade calls for more than just enforcing regulations. Their answers indicate that in addition to bolstering legal measures, long-term solutions should concentrate on altering social norms, attitudes, and incentives.

International regulations such as CITES have been criticized on the grounds that they are too complex for ordinary local hunters to understand. Instead, structural reforms such as training law enforcement, classifying wildlife crimes as serious offenses, and employing expert biologists at customs are proposed by E1, E2, E4, and E6. E2 explains the following on this matter:

If you see, for instance, the CITES regulations for trade, it is a mess, you need to be a very specialist to understand that. [...] [Huge companies] can deal with CITES, but here it is a kind of a niche market. It is about small importers. It is about people living

in villages taking a bird for a basic living. They just don't get the means to take care of all the overcomplex realities of CITES. [...] Even if they want to do things legally, they just don't get the resources or they don't even know the difference between 'this is legal, this is this appendix, there's other appendix'. [...] And it is not just about that, it is also about when people having to implement these, like at the custom level. You need people with a specific training to see why this bird can be traded and why this other not. [...] You cannot expect a custom officer to be the all experts on birds of course, because they need to be experts on all the other stuff, it would be unfeasible. So I think that it is more about having a more fluid and flexible systems where experts can be on call or you can have this kind of external points of contacts [...] to support the overall law enforcement and criminal justice system (2026).

Majority of the experts (E3, E4, E6, E7, E9, E11) believe that technology platforms should be held legally accountable. One of the proposed solutions to the problem of cybercrime differs from E1. This approach adds the proactive use of AI-powered visual recognition systems (such as iNaturalist algorithms). E1 states the following on this matter:

In terms of online platform, there are a lot of image recognition algorithm. They are already used for community, citizen science platform, for example, iNaturalist. [...] There is an algorithm [...] training with hundreds of thousands image that recognize this species. And assign the name and all the category and tell you danger or not [...]. So it is a start with artificial intelligence classification [...]. In places like Facebook, for example, it could be to recognize, okay, they are selling this species. It is possible. I mean, it is possible. This is already done. So what they need is the willingness to do it. There is not a technical problem. It is not that problem is solved already. What it is, is want to do it (2026).

Experts largely agreed that technology techniques, regulatory frameworks, and law enforcement are important, but they are not enough on their own to produce long-term

reductions in the illegal songbird trade. A number of participants contended that addressing the behavioral and social elements that influence trade participation is necessary for long-term transformation. They specifically underlined the necessity of cooperation between NGOs, law enforcement, local communities, and other stakeholders in order to develop interventions that have the potential to gradually alter social norms and incentives.

The idea of co-design, which was emphasized by specialists in behavioral change tactics, was strongly associated with this viewpoint. Participants contended that efforts that are imposed from the outside are unlikely to be successful unless they are created in collaboration with the impacted communities. Effective interventions, according to E1 and E6, necessitate a thorough comprehension of local values, motives, and perceptions before collaboratively identifying issues and potential solutions through community engagement procedures. These results imply that treating communities as active collaborators rather than passive recipients of interventions increases the likelihood that conservation efforts will be effective.

The significance of offering practical alternatives to actions that support the illicit trade was also underlined by experts. Redirecting consumer demand toward birds that are ethically grown in captivity rather than obtained from the wild was one suggested tactic. Another frequently cited strategy was to provide local hunters and low-level poachers with alternate sources of income. Participants proposed that engaging these people in bird-guiding programs, sustainable breeding projects, or conservation activities could lessen their dependency on wildlife exploitation while also bolstering conservation efforts. Encouraging the use of non-wild-caught species and assisting transfers into conservation-related professions may be crucial first steps toward long-term behavioral change, as E11 pointed out.

For professionals, achieving long-term reductions in this trade requires moving beyond simple awareness and enforcement. They advocate for comprehensive behavioral shifts driven by community participation, the provision of alternative livelihoods, and the transformation of social norms.

5.2 The Perspective of Turkish Birdwatchers

Problem Definition: General Issues, Cybercrime, and Behavioral Change

Adoration for songbirds, especially wild goldfinches and greenfinches, was rarely presented as a problem that needed to be fixed among Turkish bird keepers. In contrast, participants consistently characterized bird keeping as a deeply ingrained cultural practice that is based on

long-standing customs, interpersonal connections, and individual identity. For many respondents, being involved with songbirds was more than just a pastime; it was an important part of daily life that was strongly associated with the coffeehouse culture in which they grew up.

The importance of coffee shops in passing on bird-keeping expertise, standards, and values to future generations was often mentioned by participants. While T2 emphasized how birds historically played a central place within coffeehouse culture, even influencing social practices and group norms, T8 said that bird keeping was learnt through contacts with elder community members. According to these views, bird keeping serves as a common cultural custom that strengthens social identification and a sense of community.

The degree of participants' emotional attachment to songbirds was also made clear by the interviews. Many respondents emphasized that their relationship with birds went far beyond recreational interest, describing their dedication to bird keeping as a lifelong commitment. Bird keeping is often considered an enduring passion and is linked to a deep love for animals, as T4 explained. Similarly, T3 expressed a wish for bird-related customs to endure beyond death, illustrating the symbolic significance of this attachment.

Participants primarily shape their understanding of bird keeping around cultural identity and emotional bonds, rather than environmental or legal concerns. This explains why conservation-only or purely legal interventions often fail to resonate with those deeply embedded in the practice. In their world, the problem isn't catching birds in the wild; it is that this culture has fallen into the hands of people who don't understand the language of birds (whom they call the "jackal gang"). T7 explains it this way.

Every bird is singing; they're all fine. They all think they're professional birdwatchers. In my eyes, none of them are birdwatchers. [...] I mean, in my eyes, they're all a bunch of jackals. We call them a bunch of jackals. (2026)

However, the fact that true hobbyists, who take only as many birds from the wild as they need, select the best singers, and release the rest back into the wild, are treated as criminals is an undesirable situation for some bird lovers. T8, a member of the group of people who catch birds for traditional or hobby purposes, emphasizes that they are generally extremely selective to distinguish themselves from hunters motivated by commercial profit, taking only

what they need from nature and never selling anything. T8 has expressed this situation as an unwritten rule of their community with the following words:

Not just any bird will do for us, only the best will do. The rest have to stay in the wild. [...] I mean, we already have a hard time finding the bird we're looking for just for our own enjoyment; we might find one or two, and we just listen to them. The rest are all set free. [...] They're not for sale, you see. [...] We never sell our birds. (2026)

When it comes to cybercrime and the internet, Turkish participants describe technology as a factor that undermines culture. The anonymity provided by the internet has allowed people who have never experienced a master-apprentice relationship in their lives and know nothing about poultry health to enter this market. T3 argues as follows:

With just three days' worth of knowledge, he started telling everyone, 'This is how you do it. That's how you do that.' You know how you used to say it was a master-apprentice relationship. You used to learn from the master, but now everyone's a master. Just look at social media online; everyone's a master. (2026)

The online world has ceased to be a place where genuine bird enthusiasts share information and has turned into a black market where sick birds are sold under false names without any oversight.

The widespread adoption of the internet and social media platforms has disrupted the traditional social structure of birdkeeping, shifting the focus from a shared passion to purely commercial interests. T7 described the disappearance of the face-to-face club culture and how the digital environment has become a market rife with deception in the following words:

We used to get together on Sundays. Curiosities would come together. Now, live bird sales have started on social media. This [...] has put an end to that social atmosphere as well. [...] Self-interest [...] is being prioritized. [...] You're (maybe) someone who loves the song of a nightingale. [...] Or maybe you genuinely want to do this work. You found me on social media. I am stringing you along with lies. My goal is to sell you a bird. There's plenty of this in Istanbul, in Türkiye. (2026)

T2, on the other hand, emphasizes that the rapid and unregulated access brought about by the internet has completely commercialized this long-standing culture, and explicitly argues that the internet has "ruined" and "killed" the culture of birdwatching.

Finding the Causes: Cybercrime, General Problems, and Behavioral Shifts

Financial gain was cited by the majority of Turkish bird enthusiasts (T1–T7) as the main factor causing the illegal songbird trade to expand and wild bird populations to decline. Participants often made a distinction between bird enthusiasts and those who capture and sell birds for profit, rather than blaming the issue on traditional bird keeping methods. This viewpoint holds that what was once a cultural practice has become a more widespread and detrimental trade due to commercial motivations.

Participants frequently underlined how this process has been made easier by the growing accessibility of social media and online platforms, which make it simpler to market, sell, and distribute wild-caught birds. According to T3, the chance to make quick money has prompted more people to capture and trade birds, which has increased the number of birds available on the market.

Sharing this exact sentiment, T4 argues that financial profit, rather than a genuine passion for bird ownership, is the primary driver for many individuals involved in capturing birds. According to the participant, bird trapping is a way to make money by selling captured birds on social media sites and unofficial social networks. According to this distinction, participants believe that commercial traders are essentially different from hobbyists and that the main reason for unsustainable exploitation is profit-seeking behavior rather than cultural attachment.

From the participants' perspective, the expansion of the illegal trade is rooted in commercialization. They point to profit-seeking, market-oriented actors operating across digital and physical spaces as the primary culprits, distinctly separating this from genuine traditional appreciation.

Some of the participants in this interview (T1, T2, T7, T8) directly target certain disadvantaged groups (Roma citizens) and the growing refugee population (Syrians) in their economic analyses. It is alleged that these groups, disregarding ecological concerns, catch hundreds of birds at a time using nets, leave them to die in cramped, airless cages, and sell them to unsuspecting buyers at places like the Edirnekapı bird market. While T1 views these people as "factories," T7 states the following on this matter:

It is being set up in Edirnekapı right now. Saturdays and Sundays. The people selling there are mostly Roma, you know. A large portion of them are either caught and sold, or they get them from those who catch them and sell them. There's a market like that. So there are people who supply them, and then there are those who catch, say, 500 birds, males and females, and put them all on the counter to sell. (2026)

T8, on the other hand, states the following regarding this matter:

So they're transporting five hundred or a thousand birds. Stacked on top of each other, on top of each other, on top of each other, half of those animals must be dying. I mean, it is pure torture. That's a sin. Could this really be love for birds? I don't think so. It is all about the money. (2026)

The lack of identity verification requirements on these platforms is cited as a reason for the rise in illegal trade in the digital sphere. It has been observed that fake social media accounts eliminate the risk of those involved in this trade being caught and make oversight impossible. T2 notes that anyone with a keyboard can easily create fake accounts on social media. Emphasizing that a single person can easily have ten fake accounts, he states that this lack of oversight makes it very difficult for the government to track and apprehend criminals. T1, on the other hand, points out that sellers use fake accounts on social media to hide their identities and post listings; even if these accounts are reported and closed, they immediately open new ones and continue their trade as if nothing had happened, stating that this is not a solution. Nevertheless, T3 emphasizes that identity verification is essential to prevent illegal trade conducted through fake accounts. It makes the case that social media sites (like Facebook) ought to mandate that users log in with their Turkish ID numbers, arguing that doing so would stop people from making new accounts on a regular basis and would essentially solve the problem.

The state's failure to provide any legal framework, such as a quota or licensing system, for sincere hobbyists inevitably forces them to turn to illegal sellers or force them to catch their own birds in secret, according to participants, who also harshly condemn the government's broad ban policies. Participants claim that these prohibitions leave the market completely in the hands of unregulated and lawless actors rather than discouraging passionate individuals.

T1 explains that it is "at the mercy of those running the trade" because it is no longer able to capture birds due to legal restrictions. It highlights that these people are unregistered actors who "operate by their own rules" and disregard the law; they are unaffected by fines or raids. Also, T8 states that it is unjust to group large-scale traders who capture and sell hundreds of birds with hobbyists who take care of just one or two birds. According to T8, which claims to treat its own birds "as if they were the apple of its eye," adhering to a ban that does not differentiate between small-scale care and commercial exploitation is absurd.

Ethical Review

Turkish bird lovers base their actions and identities on extremely strict moral principles. Within this moral phase, prioritizing the bird's comfort above all else, using standard-sized wooden cages, avoiding stress for the bird, and releasing any bird with a flawed song back into the wild as soon as possible are considered the highest ethical virtues. These individuals view it as a moral right to capture 20 birds from the wild and raise the one with the most beautiful song for years, nurturing it like a baby. T5 has made the following statement on this matter:

They might have caught a group of, say, ten, twenty, or thirty birds, finding a few they like, that appeal to them, and that they want to listen to. But they select one or two to raise and release the rest. They release them back into nature. After raising the birds they've kept for a few years, they also release them into a beautiful, livable environment. There are plenty of examples like this. Besides that, I also see people who trade in them. In other words, not everyone goes out into nature to catch them.

(2026)

In contrast, those who capture hundreds of birds from the wild and confine them in cramped cages, deceive inexperienced buyers by selling female birds that do not sing as if they were males, and subject living creatures to unwanted conditions solely for financial gain are strongly condemned. T8 had this to say on the matter:

I am looking online and see it is got [...] in its cage, fluttering away. We're worried it will flutter away, but every time it flaps a wing, it flings the bird backward. [...] Every time it flaps a wing, the bird stops singing. It sings very little. It can't maintain its

form. [...] There's pain in its wing; until that wing grows back, that feather is covered in blood. This forces the bird to exert itself. It can't fully commit to singing. For us, a single wing sets it back three months. Of course, but I look at this guy online! He put the bird in a tiny cage! [...]. No one cares about the birds like this. It is just about selling, making money. That's why I am so angry. I am really upset with them. (2026)

Recommended Solutions: General Issues, Cybercrime, and Behavioral Change

Local stakeholders proposed a shift away from strict prohibition-based policies toward more flexible and regulated systems that acknowledge existing cultural practices while reducing incentives for illegal trade. A central argument was that heavy administrative fines and blanket bans are ineffective, particularly for unregistered or low-income actors who are less responsive to financial penalties. Instead, participants suggested that a controlled licensing system could help distinguish between hobbyists and commercial poachers.

Under the proposed system, legitimate hobbyists would be able to capture a limited number of birds from the wild with limited annual permits issued by state authorities or registered associations. After that, state authorities would formally register and tag these birds to guarantee ownership and traceability. By giving bird enthusiasts a legitimate alternative, supporters claimed that this mechanism could lower demand in the black market and lessen the financial incentives behind illicit trade.

T2 had pitched a model that would allow hobbyists to keep a few birds under government supervision to ensure accountability and compliance. All birds would be tagged and officially registered. T3, for example, expanded on this idea, proposing a supervised capture and tagging regime whereby only a small percentage of the birds caught could be kept, the rest released or otherwise disposed of under official supervision. T3 also stressed that for such a system to ensure transparency and control it would have to be coordinated with local authorities and enforcement agencies. Ultimately, local stakeholders advocate for controlled access, viewing it as a practical strategy that can curb illegal commerce while simultaneously protecting traditional bird-keeping practices.

Sometimes the law is not enough, and it does not work as a deterrent. Some sell hundreds of birds on top of each other only for profit, especially in places like Edirnekapı. They are claimed to have no official records or assets. These are usually people who do not have a

fixed address or a regular day-to-day income. They never pay the huge fines imposed on them because they have nothing to lose and live outside the law. Therefore the fines have no deterrent effect on them.

However, it is important not to overlook the fact that local hobbyists describe this passion as unstoppable "illness" or an irresistible "love" (as described by T2). It is noted that people are willing to risk conflict with their spouses, divorce, and all manner of risks for the sake of this passion. Once the love of birds has taken hold of them, the threat of imprisonment or a fine cannot deter these individuals from engaging in that activity.

T8 stated this as follows:

Punishment doesn't stop it. Take drug addicts, for example [...] It is the same kind of thing. Is it a passion, or should I say a habit? We call it a hobby, but if I were in Istanbul right now, we'd be experiencing it on a whole different level. Once you step into that scene, we don't even notice the rules or restrictions. In that moment, you shift into a different dimension. I mean, that community, that atmosphere, the pleasure we get from it... We're practically addicted to it. (2026)

6. Discussion

In this section, the findings are interpreted within the framework of Social Construction Theory, and a comparative analysis is conducted on how global experts and local Turkish actors frame the concepts of illegal songbird trade, cybercrime, and behavioral change as distinct realities. According to Social Construction Theory, reality is not an objective fact but a subjective phenomenon constructed by individuals through language, culture, and everyday interactions. The data obtained from this study clearly demonstrate that the two groups hold slightly different constructions of reality regarding what a songbird is and what it means to take a bird from nature.

This study aimed to explore how the illegal songbird trade is understood within the context of cybercrime and behavioral characteristics. More specifically, it examined how global wildlife crime experts and local Turkish actors involved in songbird culture frame the same environmental crime from their own perspectives, and whether differences in interpretation exist between these stakeholder groups, including how these interpretations relate to

cybercrime and cultural conceptualizations for combating illegal trade. The findings of this study both confirm and extend prior research, while also revealing context-specific dynamics that have received limited attention in existing literature.

6.1. Conceptual Gaps in Problem Definition and Identification of Causes

Addressing the first research question, (how experts and locals problematize the illegal songbird trade), the findings reveal a fundamental divergence in framing. Within the framework of Social Construction Theory, while experts view this issue as an ecological and global crisis, bird lovers in Türkiye often interpret the situation as the erosion of a unique culture. Bird lovers in Türkiye generally perceive the problem not as an issue within the environmental ecosystem, but as a result of the pursuit of material gain and cultural decline. In the experts' narrative, the bird is a biological unit that sustains the functioning of the ecosystem and a component of biological diversity. In the interpretation of Turkish actors, however, the bird is an artist with its own unique language (the Istanbul dialect), lively melodies, and a piercing voice. The definition of the problem is fundamentally changed when the bird is transformed from a natural entity into a cultural object. For the Turkish stakeholders surveyed, the true problem is that birds are either wasted or kept in subpar conditions by people who do not recognize their artistry and value, despite the fact that experts consider the disappearance of even one bird from the natural world to be a sign of a conservation crisis. This situation is similar to criticisms that the social, economic, and cultural contexts in which species are embedded may not be sufficiently taken into account by species-based conservation approaches (Gutierrez & Duffy, 2024; Mirin & Klinck, 2021; Challender & MacMillan, 2014; Fiennes et al., 2024). In fact, top-down approaches are the most frequently suggested remedies in the literature on songbird trade. interventions centered on trade laws and their implementation. This strategy raises the question of how much policy-making processes take into account the cultural meanings and values that local actors attach to birds, even though it reflects the prevailing strategy in the fight against wildlife trafficking. From a theoretical perspective, it is entirely possible to say this: the bird is the same bird; however, the two distinct social groups observing it have constructed two different worlds, two different meanings, and two different crises around that bird, each shaped by the fabric of their own cultures, languages, and values. This result directly relates to the research gap noted in the literature review: there are still few studies comparing expert and local actor perspectives on songbird trade (Mirin & Klinck, 2021; Fiennes et al., 2024). The current study fills this gap by empirically illustrating how different interpretations of the same phenomenon arise in the Turkish context.

The distinction between these two spheres appears to be becoming increasingly pronounced in the context of cybercrime. This is directly linked to the second research question of how interpretations relate to conceptualizations of cybercrime. While experts describe the cyber world as a global logistics network that facilitates organized wildlife trafficking, for Turkish actors, this sphere is an environment of corruption that undermines local culture, erodes the master-apprentice relationship, and floods the market with uninformed sellers. The expert framing of the online space as a criminal infrastructure resonates with Lavorgna's (2014) findings that digital platforms have transformed wildlife trade networks through lowered barriers to entry, direct buyer-seller interaction and transnational trade. Similarly, Nurbandi (2022) illustrates how traditional bird markets in Indonesia shifted to Facebook groups following physical crackdowns, a pattern that is mirrored by experts in this study who see the same trajectory in Türkiye. While experts highlight the role of algorithms in heightening the likelihood of criminal activity, local actors worry about the internet's tendency to conflate authentic bird hunters with traders. There is no single cybercrime or single internet. However, local actors create a crime of cultural decay through the loss of status and the breakdown of tradition, while experts create a technical crime shaped by data and global networks. In reality, both groups are viewing the same cyberspace, but they perceive different social realities (Berger & Luckmann, 1966; Fiennes et al., 2024). According to the literature, this difference in how cyberspace is framed is consistent with what Santos et al. (2025) refer to as tactical migration, a phenomenon that experts interpret as a systemic criminal threat, while According to Fiennes et al. (2026), local actors perceive it mainly as the disintegration of a previously controlled cultural community.

The accounts of Turkish actors in causal analyses demonstrate how Social Construction Theory operates. In line with the structural explanations provided by van Uhm (2018) and Kaypak (2013), who connect the persistence of wildlife crime to inadequate enforcement and economic disparities, experts frame poverty and structural inequalities as causes and evaluate the issue as a systemic problem. Turkish birdwatchers sometimes blame the decline in wild bird populations and illegal trade on the avarice of marginalized groups like Roma or Syrian refugees. This logic allows them to justify the potential harm their hobby activities cause to nature by shifting all blame onto others with commercial motives.

As seen in the 'Findings' section, although it is said that T8 birds are not sold in the community, the love for wild birds within the bird-keeping community compels people to sell them, both

legally and culturally. In particular, the decline in the number of bird lovers, or the community of those who believe they love and understand birds, has diminished the vitality of bird-keeping culture. Consequently, for those wishing to keep birds, it has shifted from being part of a culture to becoming a purely individual pursuit. However, the drawback here is that bird lovers believe these individuals need to be 'trained.' They argue that every bird, whether a wild bird or a cage bird, requires training. At this point, T4 states,

[...] First, training in this field must be provided. Take Europe, for example: when you look at birdkeepers there, they are all educated, cultured people. They do not harm the animals. They protect the birds and the natural environment. First, this awareness must be raised. And those dedicated to this cause need to come together under one roof to provide training and seminars. (2026)

By saying this, he is emphasising the importance of education. This call for education-based solutions is consistent with the behavioral literature, which increasingly emphasizes that legal deterrents and top-down enforcement alone are insufficient and that targeted awareness and outreach programs are essential in producing long-term behavioral change (Mirin & Klinck, 2021; Challender & MacMillan, 2014).

Additionally, there are parallels between the data collected and the literature. First, Xu et al. (2020, p. 210) state that in illicit online transactions, buyers inquire about the product in open platform listings before being instructed to start private chats with sellers. They noted that the efficacy of automated monitoring systems is weakened by the fact that the majority of sales-related data is kept in encrypted or private messaging apps. Coding is widely used in Türkiye, say experts and actors. From the social constructionist perspective, this exemplifies how a specific social practice (encrypted communication) has been so thoroughly established, institutionalized, and concretized that it is treated as an objective reality even by two groups with totally different frames of reference (Berger & Luckmann, 1966). This commonality in recognition echoes Nurbandi's (2022) observation of the systematic filtering of new members by group administrators in Indonesian online bird trade networks and coded language use. This is now commonplace across multiple national contexts as an adaptive response to surveillance.

Second, the fact that birds, particularly parrots, dominate smuggling activities demonstrates that certain songbirds and showy species are sought after not only for their ecological

characteristics but also because of their high market value (Arikan et al., 2021). Turkish enthusiasts are generally interested in the birds' song and uniqueness, regardless of price. What captivates them most is the birds' distinctive tones and their unique songs that soothe the soul. The special melodies produced by birds like the greenfinch and the goldfinch are unlike those of any other bird. In fact, one of them compares listening to the songs of these species not to song but to listening to a unique and one-of-a-kind song, clearly emphasizing the aesthetic admiration for a specific sound quality and tone. To an outsider, that sound is merely "chirping"; but to someone immersed in that culture, that sound can be called a symphony. This aesthetic dimension of demand conforms to what Benzohra et al. (2025, pp. 108–109) characterize as the interplay of rarity, song quality and market value that makes certain species persistently sought after. Ribeiro et al. (2019, p. 11) also reported that bird buying motivations are not only financial gains but also competition, social prestige and continuation of traditional cultural practices, which is directly mirrored in the narratives of the Turkish participants in this study. Likewise, Fiennes et al. (2026) note that the competitive culture of songbird collecting creates an ongoing demand that sustains pressure on wild populations, even among those who consider themselves true enthusiasts and not commercial players.

In addition, Nurbandi (2022) notes that the flow of illegal wildlife products, particularly songbirds, in online markets has gained momentum through the combined interaction of social media, e-commerce, payment, and logistics channels. The findings reveal that both Experts and stakeholders in Türkiye have similar opinions about this issue. E4 claims that social media and the internet have significantly changed commerce and made illicit trade much easier. According to Lavorgna (2014), compared to a physical store, sellers can reach millions of customers online, their risks have decreased, and their profits have increased. It is clear from a comprehensive analysis of the statements made by Turkish actors T1, T2, T7, and T9 that digitalization has destroyed traditional birdkeeping culture and turned the industry into an unregulated commercial market. Social media's widespread use has ended the long-standing in-person socialization within associations (Fiennes et al., 2026). It has also made the market susceptible to manipulation by unqualified people who are only interested in making money and are hiding behind fictitious accounts. Furthermore, animals' welfare has been gravely threatened by the combination of this unregulated online network and negligent logistics practices, which have resulted in animals developing deadly illnesses as a result of stress and temperature changes during transportation (Rosen & Smith, 2010; Baker et al., 2013). On the other hand, E11 notes that although online trade has grown significantly over the last ten to

fifteen years, digitalization has not completely replaced physical markets (also known as "brick-and-mortar markets") in places like Indonesia, where these traditional bird markets still operate on a massive scale. This observation supports the claims made by Yu and Jia (2015) and Krishnasamy and Stoner (2016) that increased digital surveillance tends to push trade toward more closed channels rather than decreasing overall volume. To put it another way, this is more than just a scale issue.

Beyond differences in problem definitions, the findings also reveal fundamentally distinct behavioral profiles between the two stakeholder groups. This study clearly indicates that the behavioral dimension is of central importance for understanding the illegal trade in songbirds. From the perspective of Social Construction Theory, behavioral characteristics are not merely individual traits but socially constructed tendencies shaped by the cultural and institutional environments in which actors operate (Berger & Luckmann, 1966). The data clearly demonstrate this across three behavioral dimensions.

First, experts on risk perception have consistently noted that actors involved in the songbird trade generally view the risk of legal consequences as negligible. As E10 points out, even individuals who are fully aware that their actions are illegal act without a sense of guilt because this activity has become normalized within their social circles. Turkish participants have attested to this from within: T8 characterized the experience of becoming a member of the bird-keeping community as a shift to a "different dimension" where limitations and regulations psychologically vanish. In line with the behavioral literature's criticism of strictly prohibitionist approaches, this overlap between experts' diagnoses and local experiences shows how environments of normalized behavior can structurally render legal deterrents ineffective (Moorhouse et al., 2017; Challender & MacMillan, 2014).

Second, in terms of decision-making processes, Turkish participants disclosed that deep emotional and identity-related motivations, rather than logical cost-benefit analyses, influence their relationship with songbirds. T3's description of the bird community as a master-apprentice lineage, T2's lifelong dedication since age eight, and T8's direct comparison of his love of birds to an addiction all point to what behavioral scientists refer to as habitual and identity-based behaviors that are least responsive to awareness campaigns or monetary penalties (Veríssimo & Wan, 2019; Brown et al., 2026). Experts have independently come to the same conclusion, especially when it comes to red siskin breeders in Venezuela (E1): pride, community, and belonging, rather than economic reasoning, are the driving forces behind the demand.

Finally, and perhaps most importantly from the standpoint of intervention design, both groups display a pattern that could be characterized as a structural blind spot with regard to the overall effects of actions that are individually justified. Turkish participants do not genuinely see themselves as contributors to ecological harm when they catch "just one or two" birds and release the others. Experts characterize this as a collective action problem, in which individual-justified microbehaviors compound to cause macro-level ecological harm. By reorganizing the decision-making environment instead of depending only on moral persuasion techniques, Behavior-Based Design seeks to address this behavioral gap between individual intent and systemic impact (Rare's Center for Behavior & the Environment, 2024; Sánchez-Mercado et al., 2024).

6.2. Moral Assessment

The moral framing of both groups align perfectly with the concept of "neutralization techniques" introduced by Sykes and Matza (1957) in criminological literature. Experts have noted that individuals engaged in recreational activities never view themselves as criminals and justify taking things from nature as a right. This finding has been empirically confirmed in interviews with Turkish participants.

"We care for the birds as if they were our own children," "We release those with impaired singing abilities," and "We don't keep 100 of them; we only take as many as we need" are some of the justifications offered by Turkish bird owners. According to Sykes and Matza (1957) and Sollund and Maher (2015), these arguments can be used as examples of denying harm (we're not hurting the birds; on the contrary, we treat them like VIPs) and appealing to a higher loyalty (not to nature conservation laws, but to a devotion to bird love and tradition, a tradition that "will end with us"). Turkish actors reinterpret the meaning of their actions rather than denying them. As a bird community, they socially construct their own innocence by removing the action from the state's "crime" approach and placing it within a new "moral right" approach woven with terms like love, care, moderation, and cultural heritage. This pattern aligns with the historical context of Turkish bird-keeping culture described by Bezgin (2021): the practice has long been associated with masculine identity, social respect, and a sense of custodianship over a living tradition, all of which serve as potent symbolic resources for neutralization. Similar findings were made by Mirin and Klinck (2021) and IFAW (2024), who discovered that Cuban songbird enthusiasts in diaspora communities presented their participation in singing

competitions and trade as cultural preservation rather than illegal activity, proving that neutralization through cultural appeal functions in a variety of national contexts.

Turkish participants' moral justifications are influenced by the conflict between commercial goals and emotional attachment, whereas experts assess the moral aspect of the action in terms of intervention in nature. According to this viewpoint, doing something out of love or aesthetic appreciation justifies it, but doing it purely for financial gain is seen as immoral. The participants' narratives do not directly match the experts' market-oriented diagnosis that "as long as there is demand, there will be supply"; instead, they tend to present themselves as the defenders and admirers of an aesthetic value rather than concentrating on how their own aesthetic orientations affect market supply. The findings of Moorhouse et al. (2017), who showed that emphasizing conservation impacts frequently fails to reduce consumer demand because rarity increases a species' attractiveness, are consistent with this blind spot, which is the refusal to link individual demand to collective ecological harm. Additionally, conservation prohibitions and protective status, according to Sollund (2015) and Ribeiro et al. (2019) may unintentionally raise the perceived value of a species, maintaining demand even among self-described enthusiasts. According to Fiennes et al. (2024), the market-oriented framing of experts reflects a structural analysis that local actors oppose because it would link their own practices to the crisis they claim to be mourning. This neutralization strategy involves enthusiasts reframing their consumption as acts of salvation rather than ecological harm.

6.3. Differences Among Proposed Solutions

Before outlining a behavioral intervention, specific to Türkiye, it is necessary to map out the differences in the solutions proposed by the two stakeholder groups. This comparison is explicitly called for by the first research question. This difference is theoretically significant: within the framework of Social Construction Theory, the proposed solutions are not neutral technical recommendations but extensions of the problem definitions and morality from which they emerge (Berger & Luckmann, 1966; Entman, 1993).

A two-pronged solution framing has generally been agreed upon by experts. Strengthening the penalties for crimes involving wildlife, developing institutional capacity, establishing legal accountability for technology platforms, and putting in place AI-powered monitoring systems are all part of the first structural and regulatory prong. The second strategy is behavioral in nature; it involves working together to design community-based interventions, giving small-

scale poachers alternate sources of income, and shifting consumer demand to birds raised in captivity. Crucially, experts see both strategies as essential and interconnected, and (as independently noted by E9, E5, and E6) they warn that enforcement actions that do not result in behavioral change will only cause trade to relocate rather than cease.

Turkish stakeholders, on the other hand, offer solutions that are customized to their own cultural perspectives of the problem, even though they are mainly regulatory in nature. For instance, their main proposal, a controlled licensing and quota system that permits registered recreational hunters to capture a certain number of birds annually, amounts to a call to legitimize rather than outlaw the practice. From their point of view, the issue is not bird trapping per se, but rather the absence of a legal way to differentiate between legitimate enthusiasts and commercial poachers. This reasoning is reflected in T2's tagging and registration model and T3's proposal for controlled trapping, which seek to bring the practice under regulation rather than outlaw it. The lack of any criticism of the ecological effects of the demand for ongoing wildlife capture, regardless of how small-scale it may be, is a noteworthy omission in the solutions put forth by the Turkish participants. This flaw results from the neutralization tactics previously described: if harm is defined as cultural degradation rather than ecological exploitation, solutions will inevitably address the former while ignoring the latter.

There are immediate practical repercussions to this regulatory system asymmetry. Traditional hobbyists will view expert-designed interventions that only focus on prohibitions and penalties as cultural oppression rather than protective measures, which will reinforce the narrative of "the poacher versus the true enthusiast" that already shapes their self-perception. On the other hand, regulatory frameworks that only address the legitimization demands of hobbyists run the risk of institutionalizing a demand structure that experts have identified as environmentally unsustainable. In order to close this gap, an effective policy must both recognize the cultural legitimacy of the hobby and make its ecological costs apparent and actionable for local actors.

Intervention Strategies Emerging from Divergent Understandings of Cyberspace

This distinction between these two groups' conceptions of cyberspace is not just an academic finding; it directly affects how the illicit songbird trade can be stopped at the institutional and cultural levels, which is exactly the topic covered by the second research question. The logical response, if experts view cyberspace as a criminal infrastructure, will be technological and regulatory: E4, E7, and E9 all support AI-powered monitoring, platform accountability,

algorithmic disruption, and law enforcement capacity building. However, the same intervention logic will not only be ineffective but may even backfire if cyberspace is viewed as a cultural space, as Turkish actors do. Traditional hobbyists like T1 and T8 believe that widespread digital crackdowns don't stop crime; instead, they encourage real bird enthusiasts into the black market and into the arms of the very unregulated actors they condemn.

Accordingly, these two interpretations of cyberspace indicate two complementary layers of intervention that ought to operate concurrently rather than just opposing narratives. Fake accounts, encrypted transactions, and unregulated live sales are identified in the expert interpretation as components that need to be removed at the infrastructure level. The local interpretation identifies the master-apprentice relationship, association culture, and the social trust mechanisms that formerly governed bird-keeping norms as components that need to be safeguarded and redirected at the community level. According to Challender and MacMillan (2014) and Mirin and Klinck (2021), a strategy that focuses on one layer while ignoring the other is structurally doomed to fail because it will either drive behaviors it cannot eradicate underground or alienate the cultural community, whose cooperation is essential for long-lasting behavioral change. In this way, the various definitions of cybercrime serve as a guide for the intervention architecture that any successful human trafficking countermeasure strategy in Türkiye must adhere to rather than as an issue that needs to be resolved.

6.4. Designing Behavior Change at the National Level in Türkiye

"The frame" that follows is based on both the empirical results and the body of behavioral and cultural literature regarding suggested solutions and how they relate to local conceptualizations. Certain behavioral intervention techniques specific to the Turkish context have been described based on empirical findings. The framed problems and actors are presented in the problem-behavior-actor mapping and stakeholder mapping sections. For a clearer understanding of this approach, please refer to the appendixes 4.

The framed problems and actors are presented in the problem-behavior-actor mapping and stakeholder mapping sections. For a clearer understanding of this approach, please refer to Appendix 4. The empirical results from the qualitative interviews are operationalized in Appendix 4 within the "Frame" phase, which is the fundamental stage of the Behavior-Centered Design (BCD), with a focus on the Turkish context. Based on five basic behavioral questions, Appendix 4 provides a methodical matrix that looks at the major players impacting the illegal

trade in songbirds, their present actions, blind spots, and the sustainable behaviors expected of them. To combat cybercrime in Türkiye, this appendix acts as a helpful figure, converting unprocessed qualitative data into practical, region-specific behavioral intervention recommendations.

6.4.1. Goals and Behaviours (Türkiye Focus)

Local action against the illegal capture, transportation, and sale of protected wild birds in Türkiye is warranted for a number of reasons, particularly with regard to species such as the greenfinch and goldfinch. The primary goal is to prevent both the widespread removal of these wild songbirds from the wild and their unregulated trade in actual markets like Edirnekapı or Karagümrük. The black-market network has shifted to social media, particularly Facebook live broadcasts, and operates through unregulated and fraudulent accounts as the culture of in-person relationships has declined (Lavorgna, 2014; Siriwat & Nijman, 2020). This change is in line with the larger trend shown by Santos et al. (2025) and Krishnasamy and Stoner (2016), who demonstrate that trade actors routinely move to closed groups and less visible digital spaces in reaction to enforcement pressure. Deconstructing this network is the aim. In order to address the informality that arises from a broad ban, which is known to simply drive the trade underground, the goal is to implement local regulatory alternatives and behavioral measures that will protect hobbyists from illicit dealers (Challender et al., 2025; UNODC, 2024). Additionally, it is imperative to put an end to the high death rates and violations of animal welfare that arise from moving birds in cramped, airless cages (Fiennes et al., 2026).

When examining the intended behaviors, hunting and trapping techniques are especially apparent. While commercial hunters use large-scale techniques like nets to capture hundreds of birds at once without taking ecological balance into account, local enthusiasts use selective traps in the wild to capture the best song (Eaton et al., 2015; Fiennes et al., 2026). This distinction between commercial-scale and subsistence-level trapping is similar to the typology outlined by Wyatt et al. (2020), who point out that in many areas, the songbird trade is maintained by small-scale, disorganized local actors rather than purely sophisticated organized crime networks. This structural feature makes traditional, top-down anti-trafficking enforcement strategies less effective and misaligned (Mirin & Klinck, 2021; Wyatt et al., 2020).

Technology platforms and social media companies are an important actor group in Appendix 4 that has not received enough attention in the discussion thus far. Platforms like Meta have the technical ability to identify and filter illegal wildlife trade content, but they routinely neglect to give it priority, as the empirical data shows and E7 stated clearly. These businesses currently permit coded transactions, fraudulent accounts, and illegal wildlife trade organizations to function freely on their platforms. This actor group's behavioral goal is very clear: proactively identify, filter, and eliminate content related to the illegal wildlife trade. This necessitates switching from reactive reporting systems to AI-powered image recognition and keyword monitoring, which are technically feasible and already exist, according to experts like E1. Cyber-assisted songbird trafficking in Türkiye and around the world is structurally facilitated by the lack of platform accountability, and any comprehensive behavioral intervention must involve technology companies as active stakeholders rather than passive infrastructure (Lavorgna, 2014; Santos et al., 2025).

Also, in order to hide their identities, avoid government surveillance, and even sell sick birds in unregulated live streaming, actors create fictitious social media accounts. People are prepared to risk penalties or divorce from their spouses in order to disobey the law because of the normalization and rationalization techniques used in this process; they justify their behavior as a moral right based on love and care, claiming that "a love for birds lasts until death."

6.4.2. Target Audiences and Local Drivers

Audience segmentation is crucial for any intervention to be effective in the Turkish context. A single intervention strategy is unlikely to be successful across all segments because, as Ribeiro et al. (2019, p. 11) show, motivations for bird ownership vary significantly across user groups, with urban, higher-income enthusiasts driven by competition and prestige and rural actors more frequently motivated by economic gain (Brown, 2026; Sánchez-Mercado et al., 2024). True enthusiasts and traditional bird enthusiasts view the bird not as a product but as a performer singing in Istanbul dialect. This group claims that only a few birds are taken from the wild and that those with poor singing voices are immediately released. A few years later, the surviving birds are raised and returned to the wild. This behavior is rooted in deep aesthetic appreciation, traditional coffeehouse culture, and an unbreakable psychological bond or sense of love. This profile closely resembles the historical record described by Bezgin (2021, p. 51) as a predominantly male cultural community whose identity is structured around knowledge, mastery, and aesthetic refinement, factors that behavioral interventions must recognize rather

than ignore if they are to gain traction within the community (Fiennes et al., 2026; Mirin & Klinck, 2021).

Last but not least, the group known as commercial opportunists consists of unqualified vendors who exploit the internet's anonymity, are ignorant of bird health, and have never engaged in the master-apprentice dynamic that is characteristic of birdkeeping culture (Lavorgna, 2014). This group's primary motivations are pure financial gain, a desire to kill time, and a desire for quick money. However, industry enthusiasts describe large-scale suppliers and catchers as factories that stack hundreds of birds on their counters while ignoring environmental concerns (Eaton et al., 2015; Fiennes et al., 2026). This tripartite segmentation (traditional enthusiasts, commercial opportunists, and large-scale suppliers) is crucial because, as Challender and MacMillan (2014) point out, stringent legal regulations frequently drive activities underground without completely eradicating them, especially when the actors involved do not identify as criminals and when their behavior still has strong cultural legitimacy within their community. Therefore, in order to acknowledge cultural attachment while increasing awareness of ecological consequences, behavior change strategies in Türkiye must be created to work with rather than against the social constructions that various actor groups hold (Fiennes et al., 2026; Mirin & Klinck, 2021). The desire to achieve complete financial gain under unstable and uncontrolled living circumstances is the driving force behind these people's acts.

When viewed through the prism of Social Construction Theory, this tripartite segmentation represents three different social realities that have been created around the same bird, the same market, and the same legality. It is more than just a useful classification tool. A world where the bird is an aesthetic subject and its capture is a cultural right has been created by traditional enthusiasts. A world where the bird is a commodity and the internet is an anonymous marketplace has been created by commercial opportunists. A world where birds are throughput units in a logistics operation has been created by large-scale suppliers. No single intervention (legal, ecological, or cultural) will resonate consistently across all three groups since they each inhabit distinct social realities. Therefore, a segmented framing strategy that engages each group's constructed reality on its own terms before attempting to shift it is necessary for effective behavior change in the Turkish context rather than a single message (Berger & Luckmann, 1966; Entman, 1993).

Importantly, Appendix 4 highlights an understudied behavioral target that is mostly used by local/low-level poachers. As E11 pointed out, the most sustainable way to lessen supply-side

pressure on wild bird populations may be to promote the use of non-wild-caught species and assist local trappers in transitioning into conservation-related jobs, such as ecotourism guiding or captive breeding programs, even though large-scale suppliers might need more stringent law enforcement interventions. This is consistent with the larger body of behavioral research that highlights the need for realistic and equally rewarding alternatives, rather than just eliminating current options, in order to bring about long-lasting change among economically motivated actors (Veríssimo & Wan, 2019; Sánchez-Mercado et al., 2024). Intervention strategies in Türkiye run the risk of addressing demand while maintaining the structural incentives that drive capture and trade if they do not specifically target this behavioral shift for the supply-side actors.

A brief acknowledgement is also necessary for the two additional actor groups listed in Appendix 4 (NGOs and conservation actors and the general public). Experts like E6 specifically criticized the current tendency of NGOs and conservation organizations to implement top-down campaigns that are detached from local cultural realities. Instead of treating impacted communities as passive recipients of conservation messaging, this group's behavioral goal is to move toward co-design and community-based behavioral interventions (Fiennes et al., 2026). The general public, on the other hand, largely ignores the wildlife trade and is ignorant of its connections to animal suffering and biodiversity loss. Increasing awareness is a fundamental behavioral goal that supports the efficacy of all other intervention strategies, especially when it comes to the ecological effects of the "Silent Forest" syndrome and the mortality rates linked to bird transport (Fiennes et al., 2024; Mirin & Klinck, 2021). As illustrated in the Appendix 4 stakeholder map, achieving meaningful behavioral change in Türkiye requires a synchronized effort across the entire spectrum: from supply-side actors and demand-side consumers to digital platforms, civil society, and the broader public.

7. Conclusion

This study aims to examine how the illegal songbird trade is framed through the lenses of cybercrime and behavioral characteristics, drawing on Social Construction Theory as its theoretical framework. Within this framework, the study investigates how global wildlife crime experts and local actors engaged in songbird culture in Türkiye interpret the same environmental crime from within their own social realities, how they explain its causes and propose solutions, and how these diverging interpretations contribute to both cybercrime scholarship and culturally grounded approaches to combating illegal wildlife trade.

The qualitative findings clearly demonstrate that experts and local actors frame the same problem, the same digital platforms, and the same nature-human relationship as entirely different social realities within their respective contexts, a pattern that is precisely what Social Construction Theory would predict.

Global experts define the illegal trade of songbirds as an ecological disaster (Silent Forest syndrome), an animal welfare crisis, and a complex crime accelerated by global logistics networks enabled by cyber platforms. According to these experts, the root causes of the problem include economic deficiencies, the lack of prioritization of wildlife crimes, and the normalization of such activities by consumers within algorithmic echo chambers, which are often overlooked by technology companies.

In contrast, within the world of traditional bird enthusiasts in Türkiye, the primary concern is not the removal of birds from nature. Rather, it is the corruption of the deeply rooted coffeehouse and master-apprentice culture by profit-driven and uninformed commercial opportunists, referred to as the *çakal tayfası*, who exploit the anonymity of the internet. Local actors legitimize their actions by employing Sykes and Matza's Techniques of Neutralization; they argue that they value birds, do not harm nature, and sustain their traditions, thereby reframing their actions from criminal behavior to a moral right. While cyberspace serves as a tool that accelerates illegal trade in the expert frame, for local actors it represents a domain of corruption that forces honest hobbyists into the black market and undermines cultural tradition. These diverging constructions of the same digital space illustrate how cybercrime itself is not a uniformly recognized category but a socially constructed one, shaped by the cultural and institutional position of the observer.

When evaluating the results of this study, certain methodological and contextual limitations must be taken into account. First, due to the nature of the qualitative research design, the sample comprising global experts and local Turkish actors does not statistically represent the entire population; the data obtained are intended to facilitate in-depth understanding and theory development. Furthermore, analyses of local actors in the Turkish context have largely been limited to the perspectives of male hobbyists who focus on specific songbird species such as the greenfinch and the goldfinch and typically come from specific socio-economic backgrounds (e.g., the Edirnekapı and Karagümrük neighborhoods). Finally, given the absence of Turkish experts among those interviewed and the limited number of individuals conducting empirical research on illegal songbird trade and competitions in Türkiye, extending it to include

local experts, breeders, and bird enthusiasts would broaden the perspective on the birdkeeping field in Türkiye. Ultimately, addressing the cyber-enabled songbird trade in Türkiye requires moving beyond mere prohibition, towards culturally nuanced, behavior-centered interventions.

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Appendices

Appendix 1

Questions of the Experts

The questions that were asked to the experts. They consist of 4 layers that were used with the framing of Entman.

Problem Definition

Objective: To understand how experts "frame" both the physical and digital nature of smuggling and how the target audience perceives this situation.

- 1. (General Overview)** How would you describe the current crisis surrounding the illegal trade and poaching of songbirds? In your view, is this primarily an environmental issue, a legal issue, or a cultural issue?
- 2. (Cyber Dimension)** Unlike traditional wildlife trafficking, how have social media, e-commerce sites, or private messaging groups redefined this problem? Do you think the trade in songbirds should now be classified as a "cybercrime"? Why?
- 3. (Behavioral Dimension / BCD)** How do people who buy or hunt birds describe their actions? Do they frame it as a "crime," or as an innocent "hobby, tradition, or passion"?

Diagnosing Causes (Causal Interpretation)

Objective: To identify the root causes of the problem in terms of digital infrastructure and social norms.

- 4. (General Overview)** In your opinion, who or what are the primary factors or triggers behind the widespread prevalence of this trade and the inability to stop it?
- 5. (Cyber Dimension)** How do algorithms, the lack of oversight on digital platforms, or the anonymity provided by the internet facilitate the growth of this market? To what extent should digital platform providers be held accountable for this crime?
- 6. (Behavioral Dimension / BCD)** From a behavioral perspective, what are the primary motivations driving people to purchase these birds (social status, a sense of belonging, aesthetic pleasure)? How do current social norms encourage this illegal activity?

Moral Evaluation

Objective: To understand how the digitization of crime has eroded moral judgments and how perpetrators justify their actions.

7. Perception of Morality: Do you think there is an ethical dimension on these topic?

Treatment Recommendations

Objective: To explore how cybercrime measures and behavioral change strategies (framing) can be integrated into a solution.

8. (General Overview) Why have the traditional bans and penalties implemented to date to curb the illegal trade in songbirds proven insufficient?

9. (Cyber Dimension) What steps should law enforcement agencies and technology companies take (such as cyber intelligence, keyword filtering, AI-powered monitoring, etc.) to prevent this crime committed in the digital environment?

10. (Behavioral Dimension / BCD) Instead of simply banning something, what kind of communication language and "frame" should be used to change consumers' behavior (mainstream behavior change)? What alternative behaviors could discourage people from making purchases, and how should these be marketed to them?

WHO

11. In your opinion, who is the link in this supply chain that needs to take responsibility and change their behavior? For example, is it easier to prevent a bird from being captured, or to change the mind of someone who clicks on a digital ad?

Appendix 2

Questions of the Turkish actors

The questions below were asked to the Turkish actors. The structure was tried to be protected however, the questions were made softer in order not to offend the interviewees.

Chapter 1: Problems

1. Current Situation: How do you view the balance today between the natural population of songbirds and the intense interest in this hobby? In your opinion, is the biggest problem at the moment legal loopholes, or a shift in our cultural habits?

2. Digital Transformation: In the past, these birds used to change hands at bird markets through a master-apprentice relationship. Now, social media and classified ad websites have changed everything. How do you think this rapid and uncontrolled access brought about by the internet has affected the culture of birdkeeping?

3. Perspective: Our friends who feed birds or catch them in the wild usually describe these activities as a 'passion' or a 'hobby passed down from their grandparents'. In your view, where does that fine line between this hobby and the law become blurred today?

Chapter 2: Identifying the Causes (Root Causes)

4. Underlying Causes: In the bird-keeping community, it is sometimes impossible to prevent illegal trade. In your opinion, is the main reason driving people towards illegal means an excessive love for birds, or is it the fact that this trade has become an easy source of income?

5. The Role of the Internet: The anonymity of the internet and the ability to access all sorts of content with a single click seem to have somewhat diminished the seriousness of the matter. Do you think technology companies or platforms should be more selective and responsible when it comes to such content?

6. Motivation: What drives bird lovers to take such a keen interest in specific species? Is owning a bird a matter of prestige within the community, or is it simply an aesthetic admiration for the bird's song?

Chapter 3: Ethics and Values

7. Perception of Value: How does it make you feel, as a judge and a bird lover, that birds have become a 'commercial commodity' (commodity) bought and sold online rather than simply living creatures? Does this situation undermine the spiritual essence of this hobby?

Chapter 4: Solutions

8. The Impact of Bans: We can see that simply imposing bans or handing down severe penalties does not fully resolve the issue. Why do you think this problem cannot be tackled through punishment alone? What is missing?

9. Technological Solution: Do you think technology could be used to solve this problem?

For example, how would the community react to systems that only allow the listing of registered birds or those fitted with tracking tags, or to AI-based checks?

10. Education and Communication: Instead of telling people 'don't do it', how can we encourage them to pursue this hobby through ethical and legal means (by breeding)? What kind of language should we use to instil this awareness in young birdkeepers?

Chapter 5: Liability

11. Responsibility: Who do you think is the most critical link in this chain? Is preventing the bird from being taken from the wild a more lasting solution, or is raising awareness among those who request the bird in the digital environment?

Appendix 3

Code	Specialization Status	Background and Its Relationship with Songbirds
E1	Expert	A research ecologist in Venezuela who studies the illegal trade of songbirds such as the red siskin, as well as smugglers and breeders, with a focus on behavioral change and conservation biology.
E2	Expert	A criminologist and researcher who studies the cyber dimension of illegal wildlife trade (wildlife cybercrime) and criminal networks on social media and online platforms.
E3	Expert	A researcher with a background in zoo biology who has worked as a bird keeper at Jersey Zoo and served as the breeding manager for Asian songbirds at the Cikananga Breeding and Conservation Center in Indonesia.

E4	Expert	Director of the Monitor Conservation Research Society. A leading researcher who has conducted years of undercover investigations into the illegal trade of songbirds and wildlife in Asian markets.
E5	Expert	An expert working in wildlife conservation who specializes in communications and storytelling for organizations such as IFAW and Rare. She focuses on curbing the illegal bird trade by changing the behaviors of local communities through behavioral science.
E6	Expert	A researcher working within organizations such as RARE to combat illegal wildlife trade, focusing on behavioral change campaigns and public education.
E7	Expert	An applied social scientist specializing in green criminology, holding a Ph.D. in criminology, and managing wildlife trafficking prevention and international initiatives at Sustainable Innovation Initiatives.
E8	Expert	Conservation Manager at the Cikananga Wildlife Rescue Center in Indonesia. He oversees the rehabilitation and release into the wild of animals and songbirds confiscated from the illegal trade.
E9	Expert	Founder of EcoJust and environmental attorney. An experienced investigator who has worked with the Dutch Police, IFAW, TRAFFIC, and the Wildlife Justice Commission to dismantle illegal wildlife trafficking networks (wildlife cybercrime).

E10	Expert	One of the founders and the General Manager of the Cikananga Wildlife Rescue Center in Indonesia. A biologist who has been working since 2001 on the breeding, rescue, and support for law enforcement regarding endangered Asian songbirds.
E11	Expert	Program Officer at the Monitor Conservation Research Society and coordinator of the Monitor Songbird Lab. A researcher who monitors and reports on the illegal trade of songbirds in bird markets across Asia and on social media.
T1	Not an Expert	A hobbyist who began feeding birds as a child after watching shoemakers do so. A passionate bird feeder who, having caught goldfinches and greenfinches in the wild in the past, gave up hunting after being fined and now pursues his hobby through legal and alternative means.
T2	Not an Expert - Songbird Judge at COM World Competitions	A 62-year-old breeder who has been raising birds since the age of 8. He is a Wild Bird Judge affiliated with the Federation and the president of the Curved-Beak Birds Association. An experienced master breeder who operates legally by using official bands and holds a world championship title in canary and wild bird breeding.
T3	Not an Expert	An amateur bird keeper/breeder interested in the songbird culture in Türkiye
T4	Not an Expert	A bird breeder who raises birds by fitting them with federation rings and identifying them, and who participates in competitions by breeding songbirds under official registration.

T5	Not an Expert - Bird Race Judge	A breeder and judge who is a member of the federation, known for his expertise in the "Okunbrado canary" category, and well-versed in the culture of songbird competitions.
T6	Non-expert bird race judge	A person involved in the bird market and bird-keeping community in Türkiye who is interested in the hobby of songbirds
T7	Not an Expert	A skilled bird fancier who participates in competitions and showcases excellent birds. An experienced breeder who pursues his love of birds with passion.
T8	Not an Expert	A nature lover who enjoys songbirds

Appendix 4

What is the problem?	Who is contributing?	What are they doing now?	What are they not doing?	What do you want them to do?
Illegal online and offline songbird trade causing biodiversity loss, animal welfare problems, and cyber-enabled wildlife crime	Consumers and hobby communities	Buying and normalizing wild-caught birds as culture, identity, and prestige	Not recognizing the ecological harm and extinction risks caused by demand	Prefer ethical and captive-bred birds instead of wild-caught species
	Local poachers and traders	Capturing and selling large numbers of wild birds for profit	Not following animal welfare standards or sustainable	Shift toward sustainable livelihoods

			harvesting practices	and conservation-related work
	Technology platforms and social media companies	Allowing illegal wildlife trade groups, fake accounts, and coded transactions	Not effectively moderating illegal wildlife trade content	Detect, moderate, and remove illegal wildlife trade content
	Governments and law enforcement agencies	Weak enforcement, low prioritization, and ineffective penalties	Not treating wildlife trafficking as a serious organized crime	Strengthen regulation, monitoring, and wildlife crime enforcement
	Online Communities and digital networks	Creating echo chambers that normalize illegal bird trade	Not promoting conservation awareness or critical discussion	Promote Conservation-oriented social norms and awareness
	Traditional bird hobby groups	Justifying selective bird capture as harmless cultural practice	Not fully acknowledging how cultural demand sustains illegal trade	Cooperate with legal and sustainable bird-keeping systems
	NGOs and conservation actors	Applying top-down campaigns disconnected from local culture	Not sufficiently involving communities in behavioral co-design	Use co-design and community-based behavioral interventions

	General public	Trivializing wildlife trade and ignoring ecological impacts	Not understanding biodiversity loss and animal suffering	Recognize biodiversity loss and animal suffering caused by the trade
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