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# Organized crime or crime that is organized? The parrot trade in the neotropics

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**Abstract** The illegal wildlife trade is one of the most profitable illegal industries in the world, only behind the trafficking of drugs, guns, and humans. Because of the relative ease in poaching wildlife combined with the possibility of high profit margins, many assume that organized crime is heavily linked to the trade. One group of species that is poached, trafficked and sold in illicit markets throughout the world are parrots. While some have claimed organized crime groups are involved in the trade, parrot experts contend there is no evidence of organized crime being involved. The purpose of this paper is to examine the structural organization of the illegal parrot trade in the neotropics to determine if the trade is driven by organized crime or if it is a simply a crime that is organized. The following study is based on 38 interviews with parrot poachers, middlemen, wildlife market sellers, and others knowledgeable on the trade in multiple cities within Bolivia and Peru to better understand the organization of the trade. The results garnered from these interviews do not support the notion that organized crime is involved in the illegal parrot trade in either country. The vast majority of participants are freelance operators where there appears to be no formal organization between or amongst those operating in the parrot trade. Implications of findings are discussed.

**Keywords** Poaching · Conservation criminology · Wildlife crime · Organizational structure · Crime prevention

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## Introduction

The illegal wildlife trade is one of the most profitable illegal industries in the world, only behind the trafficking of drugs, guns, and humans (Fears 2014; Vince 2002). Profits from the wildlife trade are increasing (Alacs and Georges 2008; Warchol et al. 2003), being driven largely by international demand, as in the case of elephant ivory (Bennett 2015), and demand within source countries, such as the illegal parrot trade (Gastanaga et al. 2011). Much of the poached wildlife is caught in areas where humans do not reside or spend time, thus diminishing the risk that poachers will be detected or arrested. Additionally, enforcement resources that focus on protecting wildlife are scarce in nations where the richest biodiversity exists (Pires and Moreto 2011). Because of the relative ease in poaching wildlife combined with the possibility of high profit margins, many assume that organized crime is heavily linked to the trade. In fact, only anecdotal evidence suggests that organized crime is reaping the rewards of poaching, trafficking and selling wildlife domestically and internationally (Warchol et al. 2003; Wyler and Sheikh 2008; Zimmerman 2003).

One group of species that is poached, trafficked, and sold illicitly in various markets throughout the world is parrots, or *psittacines*. The profit margins on the sale of parrots can be quite high, with some species, such as the Hyacinth Macaw or the African grey parrot, fetching upwards of $10,000 in international markets (Herrera and Hennessey 2007). Parrot experts who have done fieldwork in the neotropics contend that there is no evidence of organized crime being involved in the illegal procurement and selling of parrots in city markets. Rather, experts suggest the trade is largely a product of local peasants, or *campesinos*, who poach birds from time-to-time and sell them to middlemen or market sellers (Pires and Clarke 2011). Yet, newspaper articles and press releases (Boyes 2012; Europol 2011) imply that the illegal wildlife trade, including the trafficking of neotropical parrots, is a product of organized crime networks. Such stories conjure up images and associations of mafia-type associates that are highly organized, structured, and willing and able to intimidate or inflict harm on individuals who get in their way of profiting from the illegal wildlife trade. The importance in knowing how the illegal trade in parrots is organized has implications on the tactics law enforcement may use to disrupt or reduce criminal networks and their activities. For example, "flexible prompt intervention strategies" such as wiretaps, quick arrests, and seizures are often used against loosely organized criminal groups whereas "large-scale and lengthy long-haul strategies" (i.e. infiltrating groups and delaying arrests to gather more evidence) are more likely to be used against proto-typical organized crime groups such as the mafia (Kleemans 2007, p.169).

The purpose of this paper is to examine the structural organization of the illegal parrot trade in the neotropics in order to determine if the trade is driven by organized crime or if it is simply a crime that is organized. Interviews were conducted with parrot poachers, middlemen, wildlife market sellers, and others knowledgeable on the trade in multiple cities within Bolivia and Peru to better understand the organization of the trade.

### The illegal parrot trade

Parrots have been poached historically in large numbers in the neotropics (Cantu et al. 2007) and elsewhere around the world (Pain et al. 2006) for pet ownership (Cantu et al. 2007; Gonzalez 2003; Weston and Memon 2009). Their beautiful plumage,

intelligence, mimicry ability and human companionship qualities make these birds highly coveted around the world (Pires 2012). A combination of unsustainable poaching and habitat loss has driven many parrot species to become endangered (Juniper and Parr 1998; Howell and Webb 1995). In fact, about one-third of all parrot species in the world are threatened to some extent (Pain et al. 2006) and at least one species, the Spix's Macaw, is thought to be extinct in the wild (Birdlife International 2015; Wright et al. 2001).

A number of conservation studies have been able to quantify the size of the illegal parrot trade in neotropical countries through the use of various methodologies. In the first major study, researchers in Mexico (Cantu et al. 2007) interviewed a representative sample of wildlife poachers at a time when most parrot species could be legally trapped in Mexico. The authors projected about 65,000 to 78,500 parrots are trapped and traded on an annual basis. In Santa Cruz, Bolivia, a market survey method was used whereby they hand-counted the number of parrots sold within a major illicit wildlife market for a one-year period (Herrera and Hennessey 2007). In this one open-air market, they found over 7000 parrots in 30 species. In the most recent study, researchers in Peru used a quarterly survey method where they hand-counted parrots by species in markets within eight major cities every three months (Gastanaga et al. 2011). Using this approach, 34 species were recorded in markets and they projected that 80,000 to 90,000 parrots are poached on an annual basis in Peru.

It is well established that parrot poaching far exceeds sustainable levels in neotropical countries (Cantu et al. 2007; Gastanaga et al. 2011; Herrera and Hennessey 2007; Tella and Hiraldo 2014). Relevant to the current study, these parrot count studies also suggest that the large majority of parrots are sold within domestic markets rather than in international ones. In Mexico, for example, Cantu et al. (2007) found that only 4–14 % of trapped parrots were being smuggled over the border to countries such as the U.S. In Peruvian open-air illicit markets, 33 of 34 species found for sale emanated from Peru and the one non-Peruvian species represented 0.2 % of total parrots (Gastanaga et al. 2011). Similar findings were recorded in Bolivia where only 3 of 30 species were from a different country, representing 0.06 % of all birds (Pires and Clarke 2011). The consensus from these studies suggests there is little evidence that smuggling over national borders occurs and the largest demand comes from source countries.

If organized criminals were to be involved in the illegal parrot trade, it would be expected that transnational smuggling would be frequently occurring in the neotropics. The reason for this is that markets outside many of the range countries have stronger economies that allow for more disposable income to be spent on highly valued and demanded species such as the critically endangered blue-throated macaw (*Ara glaucogularis*) or the endangered red-fronted macaw (*Ara rubrogenys*), both of which are found in Bolivia. This is consistent with recent research that found seizures of smuggled Mexican species into the U.S. were more likely to be the most attractive parrot species (Tella and Hiraldo 2014). In addition, many of the parrot species in the trade would likely be the most valuable or rare species, as they would fetch the highest returns when sold. Prior criminological research on the illegal parrot trade, however, has shown that the large majority of poached parrots are highly inexpensive and widely abundant (Pires and Clarke 2011, 2012; Pires 2012, 2015a). For example, the most poached species in Peru, the Canary-winged parakeet (*Brotogeris versicolurus*), is sold for as little as US$0.33 (Dauphine 2008) and is considered a non-threatened species. If

most poached birds are highly abundant, inexpensive, and often found near illicit markets (Pires 2015b), this is indicative of a highly opportunistic crime that is largely taken advantage of by locals (Pires and Clarke 2011) who do not see much wrong with taking birds from the wild.

## Organized crime & crime that is organized

Depending on the person asked, the concept of organized crime brings to mind many different images. Popular media have contributed to our understanding of organized crime by depicting the typical mobster being affiliated with the Italian Cosa Nostra and having large-scale wars between "families" that compete for control of illegal goods and services. Historically, organized crime's activities include corrupting public officials, racketeering, prostitution, gambling, and drug trafficking. In recent years, the media and police agencies also have been quick to attach the moniker of "organized" crime to emerging criminal activities that seem complex and that span national borders, such as illegal wildlife trafficking (Europol 2011; Morelle 2014). Generalized characterizations like these make it difficult for crime reduction experts to overcome the stereotype. Consequently, it becomes more difficult to convince policy makers and police agents in areas where species are being poached and trafficked that locals may be actually responsible.

From a criminological perspective, the concept of organized crime is far more complicated than these stereotypes. So complicated, in fact, that the definition of organized crime has been elusive for many decades (Kleemans 2007; Lavorgna and Sergi 2014; Levi 1998; Van Duyne and Van Dijck 2007; Von Lampe 2003; Wright 2006). Researchers have been attempting to forward an accepted meaning for the phrase of organized crime for some time (Cressey 1969; Chambliss 1978; Kleemans 2007; Sellin 1963, Finckenauer and Waring 1996, Finckenauer 2005; Von Lampe 2003). Part of the definitional problem is that organized crime is highly contextually dependent. That is, organized crime manifests itself in different ways around the globe as it relates to structure and activities (Albanese et al. 2003; Lavorgna and Sergi 2014; Levi 1998; Savona 2010). In addition to context, legal definitions created by practitioners (i.e. policy makers, law enforcement) favor broader definitions of organized crime and often focus on typical crimes committed by organized syndicates, whereas academics prefer more narrow definitions and focus more on structural organization (Lavorgna and Sergi 2014). In the end, a universally accepted definition of 'organized crime' is hard to come by.

In the U.S., the 1986 President's Commission on Organized Crime acknowledged that the problem in defining it does not rest in the meaning of *crime*, but rather in the idea of what is meant by *organized* (Finckenauer 2005). Finckenauer (2005) argues that organized crime cannot be defined by the activities, but rather on the level of organization associated with the commission of the criminal activity. Earlier typologies of organized crime (Cressey 1972; Best and Luckenbill 1981; Beare 1996; Hagan 1983; Maltz 1985, 1994) mainly focus on organizational sophistication, structure and division of labor, and the relationship organized crime groups have with society. Many typologies are outdated as they were reflective of mafia groups in the U.S. in the 1960s and 1970s (Finckenauer 2005) where pyramidal structures, a clear division of labor, and corruption were common (Paoli 2002).

Many crimes that are complex may require a network of individuals who work in concert for mutual benefit, but that does not necessarily imply they are part of an organized crime group. Such networks are "often small, informal, and short-lived" (Finckenauer 2005, p.75). Criminal organizations, however, will have "continuity both over time and over crimes" (Finckenauer 2005, p.75). Finckenauer (2005) continues to explain that for criminal networks to be considered a criminal organization (i.e. organized crime), they must, first, organize themselves to meet certain criteria, which are described below.

> **Criminal sophistication**: This category relates to the degree to which criminals plan their offenses. Their skill and knowledge levels are also indicative of their amount of sophistication in their abilities;
> **Structure**: This relates to the division of labor within the organization or group. Highly structured groups will be hierarchical and have defined roles for members where a boss doles out tasks to lower echelons;
> **Self-identification**: Members of the group or organization must actually see themselves as members of this group. Bonding is a major part of this characteristic, which is visible through specific, uniform clothing, tattoos, or initiation rituals; and
> **Authority of reputation**: The ability of an organization to coerce people either through direct or implied threats relates to the group's sense of authority and reputation.

Recent research in the field has found only a minority of organized crime groups use hierarchal structures, which are typically found in Italy and the U.S. Many other groups are less structured and resemble more of a 'criminal network', particularly as it relates to transit crime such as drug trafficking, human smuggling, and the like (Kleemans 2007). That said, Finckenauer's (2005) criteria allows for a range of organizational structures to be included.

Claims that organized crime groups are involved in the poaching and trafficking of elephant tusks and rhino horn may be accurate, but it does not necessarily insinuate their involvement with hundreds of other species that are commonly poached and trafficked around the globe. The illegal trade in endangered flora and fauna can (and does) differ vastly from species-to-species. An emerging body of literature is demonstrating that much of the wildlife poaching and the subsequent illegal trade of those products is indeed *unrelated* to organized crime in the traditional sense of the definition (Pires and Moreto 2011). Other seemingly organized criminal activities, such as internationally trafficked stolen cars (Clarke and Brown 2003) and the illicit drug trade (Eck and Gersh 2000; Natarajan and Belanger 1998), are not always caused or facilitated by organized crime, but can instead, be crimes that are merely organized around criminal opportunities (Clarke and Brown 2003). Relevant to this study, Natarajan and Belanger (1998) examined the nature of drug trafficking organizations as they relate to a two dimensional typology of *tasks* and *organizational structure*. Using previous classifications by Curtis (1996) and Johnson et al. (1992), drug trafficking organizations were examined in light of their *tasks* (i.e. manufacturer, importer/smuggler, wholesale distributor, and regional distributor) and their *organizational structure* (i.e. freelance, family businesses, communal businesses, and corporations).

The *tasks* within the parrot trade are noticeably different from those in the drug trade, and therefore need to be tailored to the study at hand. The three main tasks within the parrot trade are poaching, trafficking, and selling to the consumer. Parrot poaching takes place generally in crop fields and in rainforests, trafficking is local or regional, and selling typically occurs in open-air markets or occasionally door-to-door. (Pires and Clarke 2011; Pires 2015b). The *organizational structure* classifications originally created by Curtis (1996 as cited in Natarajan 1998, p. 1008) for street-level drug dealing are highly relevant to the present study and are conceptualized as follows:

> **Freelance**: Individuals are described as such when there is no formal hierarchy or division of labor. Transactions between freelancers may be a one-time deal as there are no expectations for future transactions;
> **Family Business**: Under this classification, criminal activity may operate as a family operation and where a division of labor may exist, but is not formally defined or structured;
> **Communal Businesses**: Like family businesses, the division of labor in this category is not formally defined, but rather flexible. A small group of people are involved in the activity with a clearly identified boss; and
> **Corporations**: Within this category, the division of labor is clearly defined that corresponds to a clearly defined formal structure. A large number of individuals are involved in the activities.

As it relates to the illegal parrot trade, two of the four classifications - freelance and family business - are considered to be loosely affiliated networks of people involved in a criminal opportunity. Freelance operators have no division of labor as they perform the requisite tasks related to the parrot trade. Because the work of these individuals requires no leaders and has no need for a formal division of labor or structure, freelance operators would fall outside the definition of organized crime according to Finckenauer (2005). Families that work together to actively poach, traffic, and sell parrots may have an informal division of labor and do not appear to have an identified leader. Furthermore, these families do not have a structure. Like the independent operators, family partners do not meet Finckenauer's (2005) definition of organized crime. Communal businesses, however, begin to have more structure by having a clearly identified boss. Corporations are the most organized, as they have a division of labor with defined roles and more people involved. A corporation classification resembles how an organized crime group would be structured according Finckenauer (2005). That said, structure alone does not make a collection of individuals an organized crime group. Signs of *criminal sophistication*, *self-identification*, and *authority of reputation* must also be evident for a group of criminals to be classified as organized crime.

The present study uses both Finckenauer's (2005) and Natarajan and Belanger's (1998) frameworks in order to determine if that trade is fueled by organized crime or if it is merely a crime that requires some level of organization in order to commit. We examine how the trade is organized using Finckenauer's (2005) definition of organized crime groups (i.e. *criminal sophistication*, *structure*, *self-identification*, and *authority of reputation*) and use Natarajan and Belanger's (1998) framework specifically for *structural organization* and *tasks*. The following section details the Methodology and is followed by the Results, Discussion and Conclusions.

## Methods

Due to the nature of the subject matter, snowball sampling, a non-probability sampling technique, was used in this research. This type of sampling is used commonly in qualitative criminological field research where there exists a need to identify specific individuals actively engaged in criminal activity (Maxfield and Babbie 2015). Typically, this sampling technique is appropriate for identifying small numbers of subjects for study. Research subjects were identified by asking those who have agreed to participate for additional names of those who might be willing to answer the interview questions. Neither of the primary authors are native Spanish speakers; therefore we partnered with a researcher located in Bolivia and one with ties in Peru who conducted the interviews in their native language, Spanish. For the purposes of this study, researchers did not depend on criminal justice officials or agencies to obtain names of potential interviewees who could then identify other potential participants. Instead, the third author on this article, knew some Bolivian poachers and middlemen from when he was involved in that business. He contacted these former colleagues seeking their participation. The researcher in Peru visited the markets where wildlife were sold and asked buyers and sellers if they were interested in participating in the study whereby further contacts were recommended.

Interviews were conducted in public eateries, but within them, the researcher and subject talked in as private a place as possible. Due to the illegal nature of the activity, participants did not consent to recording; therefore each researcher took hand-written notes of the responses. The downside to this method of note-taking rather than verbatim transcription is that it does not makes it possible to cite direct quotes from the interviewees. As previously mentioned, all interviews were conducted in Spanish and the researcher's notes were later translated by a bilingual research assistant. No interviewee received any form of compensation for participating in the study.

A total of 38 interviews consisting of 6 poachers, 10 middlemen, 17 market sellers, and 5 individuals with knowledge about the parrot trade (e.g. sanctuary owners, zookeepers, etc) were conducted from May through September 2012. While 38 interviews were carried out, only 33 individuals actually participated in the study. This is due to five individuals that had dual roles (seller and middleman) and were interviewed twice; once for each specific role.

The 38 interviews were conducted in or around four cities in Bolivia and Peru: Santa Cruz de la Sierra ($n$ = 14), Cochabamba ($n$ = 11), Pucallpa ($n$ = 7) and Iquitos ($n$ = 6). All cities are home to local illicit wildlife markets as detailed by previous research (Gastanaga et al. 2011; Herrera and Hennessey 2007). After subjects consented to be interviewed, a semi-structured questionnaire was employed that asked about their past activities related to the parrot trade. Each subject answered general questions about his or her activities along with questions tailored towards specific roles in the trade (i.e. poaching, trafficking, and selling). IRB approval for this project was given by Florida International University in March of 2012 (#031,412–00).

### Bolivia

Overall, 20 Bolivians participated in the study. Five of these 20 had dual roles and, as previously stated, were administered an additional series of questions pertaining to their

multiple roles in the parrot trade. Therefore, a total of 25 interviews revealed information about the nature of the trade.

Of the 20 participants, 14 were sellers of wildlife, 5 of whom also had roles as middlemen, and 6 acted as poachers. Of the sellers, 8 were female and 6 were males. Together, the sellers had an average of just over 11 years of experience in the parrot/wildlife trade. Their ages ranged from 19 to 45 years. The sellers as middlemen, ranged from 21 to 40 years of age and had an average of just over 10 years of experience in the trade as middlemen. The 6 poachers were all males and together had an average of less than 14 years of experience hunting animals.

Of the 14 sellers, six had jobs in addition to selling parrots with two of them selling parrots as their primary job. The poachers were evenly split in terms of having additional jobs. Of the three poachers that have other jobs, one of them poaches parrots as their primary job. By far, the majority ($n$ = 13 individuals) sold parrots and other wildlife for their primary income while this was secondary income for 7 of those interviewed.

## Peru

A total of 13 individuals were interviewed in Peru. Five of the 13 were not actual participants in the parrot trade, but indicated that they had knowledge about the trade and therefore offered valuable insight to its operation. For example, two interviewees ran legitimate animal sanctuaries, while the three remaining individuals had no apparent or clear ties to the parrot trade. Their occupations were: fisherman, indigenous farmer, and medicine man. We decided to retain these individuals' responses as part of our dataset due to the fact that they did have critical information about how parrots are traded and the cost of various species. Consequently, of the 13 individuals, there are five middlemen, three sellers, and five with miscellaneous occupations that are tangentially related to the parrot trade. There were no poachers interviewed in Peru.

Of the 8 who are actually involved in the trade, one was a woman. Only two individuals worked full time in the parrot trade, while the others had other full time jobs and one was a full-time student who helped his aunt by selling her animals while he was in town for classes. There were four full time tour guides and a carpenter who supplemented their income by participating in the parrot trade.

## Analysis

Qualitative research seeks to develop an understanding of a particular phenomenon from the perspectives of those involved or engaged in that phenomenon (Maxwell 2005). Therefore, in this study, we chose to conduct a content analysis, which is appropriate for analyzing various forms of communication (Maxfield and Babbie 2015; Krippendorff 2013). A content analysis of the interviews was conducted in order to identify themes as they correspond with levels of organization surrounding various activities in the parrot trade in the neotropics. Of particular importance are those categories identified by Finckenauer (2005) – sophistication, organization, reputation, and bonding, as well as organizational structure and tasks as specified by Natarajan and Belanger (1998).

Translated notes of individual responses were read completely to uncover themes and patterns. Due to the exploratory nature of this research, interview responses were analyzed with an interpretative approach (Berg and Lune 2012) that focused on the phenomenon of parrot poaching in the neotropics. As with other phenomenologically oriented research, it is essential to uncover the essence of the subject matter (Berg and Lune 2012), which in our study is the nature and structure of the parrot trade that was taking place in the neotropics. Content analyses that focus on manifest content may include frequency distributions of the appearances of specific words or phrases. Our research does not include these as "counts" as they do not necessarily reflect the true nature of the data or phenomenon (Berg and Lune 2012). Instead, our research relied on open coding, which allows each respondent's answers to tell the story of parrot poaching, including its characteristics, tasks, and structure. This latent content provided meaning to interview responses, thus allowing an interpretative reading of the data.

Once keywords, phrases, and themes were identified, the inductive process allowed for findings regarding the extent to which the parrot trade in the neotropics is organized. One researcher coded the interviews and then recoded them after a two-month period. This delay helped to determine coding reliability (Maxfield and Babbie 2015; Krippendorff 2013), which was approximately 95 %. During the second session of coding, if there was a discrepancy, the researcher waited another two-week period and re-examined the terminology.

It is perhaps important to clarify here that the questions asked to subjects explored a broad range of topics including the decision making process of participation, target selection, methods utilized, and the organization of the trade and its related tasks. After reading the interview notes, the lack of both criminal sophistication and organized crime characteristics emerged as an important theme in the interviews. Had our interview questions been more focused on the organization of the trade, we would have been able to better answer some of the questions Finckenauer (2005) has laid out as evidence of organized crime groups, such as *self-identification* and *authority of reputation*. This presents an opportunity for future qualitative research on the illegal wildlife trade to explore.

Limitations could not be avoided in this research project. Snowball sampling, while providing a rich diversity in participants, does not lend itself to providing representative samples. Because of this and the nature of the crime, this study could not provide an equal number of actors involved in the illegal parrot trade. It was hoped that equal numbers of poachers, middlemen, and sellers could be obtained in both countries, but this goal was elusive.

## Results

As previously stated, findings from the interviews are organized through Finckenauer's (2005) and Natarajan and Belanger (1998) frameworks in order to determine the characterization of the illegal parrot trade in the neotropics. Once again, the four dimensions that help define organized crime include criminal sophistication, structure, self-identification and reputation (Finckenauer 2005), while Natarajan and Belanger (1998) utilize a two dimensional framework that explore organized crime by examining level of organization and the types of tasks involved in the crime.

## Criminal sophistication

According to Finckenauer (2005), organized crime involves activities that require some type of sophistication, which can be measured by the planning involved, special technical skills or knowledge, and the longevity of criminal ventures. Participants generally agreed that knowledge of the jungles and rivers was necessary for success. There existed little, if any, planning or sophistication to the act of catching the birds. Nets are simply thrown on river banks or in crop fields to snare the various animals, including parrots. Only two of six poachers used methods other than mist nets, which consisted of climbing trees and ground traps. Neither of these alternatives requires a great deal of special technical skills, knowledge, or overall sophistication.

Moreover, there is a lack of sophistication for middlemen ($n$ = 10) to move their merchandise from the point of catch through to sale. Of the 10 middlemen, none had complex networks of associates, nor was there any indication that they had to travel far in order sell their catch. Five of the six poachers indicated that they go to crop fields in order to catch their prey with the sixth poacher saying he went into the forest to collect his prey. Four of the six poachers are consigned in some way, either through pay or merely permission, to come to the fields to trap birds. One poacher said he only helps his father so he did not know if their work was conscripted.

The complexity of the selling seems minimal at best. While some sellers order or "suggest" to middlemen what birds they would prefer to sell, the participants in the trade simply purchase anything that is on offer ($n$ = 16); only five said they try to order specific species, but will buy whatever parrots are for sale.

Another indication that it is unlikely that traditional organized crime groups are involved with the parrot trade in the neotropics is the type of species that are brought to market for sale. Participants acknowledged 11 species of parrots[1] that are routinely poached and trafficked, all of which are not threatened with extinction according the IUCN Red List (2015) and sell for relatively low prices (Pires 2012). All species have been frequently found in illicit markets in Peru (Gastanaga et al. 2011) and in Bolivia (Herrera and Hennessey 2007), supporting the accuracy of participant information.

## Structure

While Finkenauer talks about clearly-specified divisions of labor, authority and leadership, the parrot trade appears to have none of these. That said, there does exist a structure of sorts. Using the two dimensional typology of tasks and structure set forth by Natarajan and Belanger (1998). Table 1 summarizes the activities central to the parrot trade and the ways in which these activities are structured. The interviews revealed several possible tasks associated with the parrot trade in Peru and Bolivia.

Table 1 provides interesting findings about the organization of parrot trading, as well as how parrots (and other species) reach buyers or consumers. The data demonstrate

[1] The species mentioned by participants include: Yellow-chevroned parakeet (*Brotogeris chiriri*); Green-cheeked parakeet (*Pyrrhura molinae*); Dusky-headed parakeet (*Aratinga weddellii*); Peach-fronted parakeet (*Eupsittula aurea*); Chestnut-fronted macaw (*Ara severa*); Cobalt-winged parakeet (*Brotogeris cyanoptera*); Blue-headed parrot (*Pionus menstruus*); Mitred parakeet (*Psittacara mitratus*); Turquoise-fronted parrot (*Amazona aestiva*); Blue-winged parrotlet (*Forpus xanthopterygius*); and Monk parakeet (*Myiopsitta monachus*).

**Table 1** Tasks and Organizational Structure of the Neotropical Parrot Trade

| | Organizational Structure | | | |
|---|---|---|---|---|
| Tasks | Freelance | Family-Involved | Communal | Corporation |
| | | | None | None |
| Poach only (self use) | None | None | | |
| Poach & sell to middlemen | B20, B22, B23, B25 | B24 | | |
| Poach & sell to marketplace | B20, B21, B25 | None | | |
| Poach & sell directly to public | B23 | B24 | | |
| Conduit for buyers/sellers | P1, P2, P5, P7 | None | | |
| Middlemen buys from poacher sells to market seller | B17, B18, B19 | B15, B16 | | |
| Middlemen buys from poacher and sells directly to public | P6, B18 | None | | |
| Sells & distributes to other sellers | B2, B5 | B1 | | |
| Sells only | P9, P13,B3, B4, B6, B7, B8, B9, B10, B11, B12, B13, B14 | P10 | | |
| Not included: P3, P4, P8, P11, P12 | | | | |

*P = Peru Interview; B = Bolivia Interview

that family ties do not seem to play a highly important role in the parrot trade in the neotropics. Two middlemen indicated that their husbands were poachers and that they sold the birds and other animals that they caught. Three individuals had family members active in the parrot and overall wildlife trade. A female seller, who also acts as a middleman, indicated that her spouse also traps parrots. One middleman and one poacher learned their skills from their fathers when they were children. There were six instances where friends taught the interviewees or invited them along when they poached or sold. Finally, one young man poached birds and other animals for his aunt.

Table 1 also shows how parrots are able to reach the public. The first is centered on the tasks of poachers, who hunt and trap the animals; they are also responsible for killing the animals if live ones are not wanted. Poachers get their prey into the hands of consumers in one of three ways: 1) sell goods to middlemen; 2) sell them to marketplace sellers who will then sell to the public; or 3) sell directly to the public, thus cutting out middlemen altogether. None of the poachers interviewed used the goods they trapped themselves. The second way their goods reach the buying public is through the middlemen. Middlemen appear to have two ways of operating. The first is to purchase goods directly from poachers and then sell those goods to marketplace sellers. The second is to buy directly from the poacher and then sell to the public without any other assistance. The third role active in the process is the seller. Sellers will purchase their goods and either sell them directly to the public or to other marketplace sellers. There is one other unique role in the parrot trade–the conduit. This person is not an active hunter, nor does he sell goods. Rather, the conduit simply makes introductions

between people who have the goods and those who want the goods. They facilitate the trade, thus taking a more passive role in the process.

Finally, participants in the illegal parrot trade acknowledged they are involved in capturing, trafficking and selling other wildlife, such as dogs, monkeys, jaguars, boars, and deer ($n = 9$). Coordination of activities usually is only necessary for the aforementioned large prey and not the capturing of parrots. Larger species require teams of people to hunt, trap or kill, and harvest the carcass. This is the only indication that there is a need for organization of activities. These activities are available when tourists specifically ask for larger species.

### Self-identification and authority of reputation

The data in our study cannot truly address self-identification and authority of reputation as questions on these characteristics were not asked specifically. That said, the participants in our study did not appear to see the activity in which they engaged as criminal. Simply, they saw their actions as ways to generate either primary or secondary income. There was no indication that there was any affiliation with larger groups that had special monikers or traditions.

Because the vast majority of our participants are freelance operators, there appears to be no formal organization between or amongst those operating in the parrot trade. Rather, these individuals are independent contractors. It can be assumed that since they do work as freelance operators, the products they provide must meet the consumer's standards. To do otherwise risks their income. Therefore, it is assumed that their reputation will be based on the quality of their end product, their timeliness to deliver, and their reliability. There was no indication in any responses that fear or intimidation was utilized as a way to force sales or purchases.

## Discussion

The purpose of this study was to examine the parrot trade in the neotropics in order to determine if that trade is fueled by organized crime (in the traditional sense) or if it is merely a crime that requires some level of organization in order to commit. It is important to keep in mind that the countries under study are extremely impoverished. Participants in this study indicated that they hunt, buy, and sell various parrot species as either primary or secondary income sources. These activities provide opportunity to generate additional income in order to support basic living expenses in a way that does not appear to take a great deal of trouble, expense, or coordination of efforts.

The results garnered from these interviews, at this point in time, do not support the notion that organized crime is involved in the illegal parrot trade in either country. It also appears as if the trade does not require that much organization on behalf of the participants. Poachers appear to be able to collect and sell their prey themselves or to find with ease a number of sellers willing to buy their captured birds for sale to the general public. Interestingly, nuances in tasks were identified through this research study that have not been identified by prior literature. Actors had dual roles in the trade where some poached and sold parrots to consumers, some poached and trafficked, and some trafficked and sold parrots in the marketplace. In addition, we identified a new

task within the trade known as the conduit role. This person is not actively part of the illegal trade, but simply facilitates the trade by introducing individuals to each other.

Relying on Finckenauer's and Natarajan and Belanger's frameworks as a basis for analyses, these data indicate that the parrot trade in Peru and Bolivia seems to lack criminal sophistication and organizational structure. Furthermore, there is no mention of intimidation or fear associated with the trade, nor does there appear to be an exclusive way for hunting, trapping, buying or selling these animals. In sum, the parrot trade in these two countries does not appear to be an organized crime problem based on our sample of interviews.

Rather, there appears to be a loosely affiliated network of hunters, buyers, and sellers who can easily provide desired items to the consuming public. The parrot trade in Peru and Bolivia does not appear to possess the markers of organized crime such as transnational trafficking, complex organization, and the exclusive targeting of valuable and rare species. Rather, it seems like a common activity, involving common and affordable bird species as well as common people. If much of wildlife poaching and the subsequent illegal trade in such products is indeed not related to organized crime, then one could see how the illegal parrot trade is similarly created by a "loosely affiliated network of criminals who coalesce around certain criminal opportunities" (Finckenauer 2005, p.65).

The results of this study contradict the opinions and, too often, generalized statements of many politicians, policymakers, and journalists regarding perpetrators of wildlife trafficking. The liberal application of the term "organized crime" toward any crime that is complex and involves multiple actors does a disservice to understanding the true nature of the criminal problem (Beare and Naylor 1999; Finckenauer 2005). It makes common citizens more fearful of the actors in the trade as they might believe they are dealing with some "omnipotent force called organized crime (or more especially mafia)". (Finckenauer 2005, p.78) The more fearful common citizens are, the more likely they are to succumb to the demands of criminals, thus, the citizens become less likely to report crimes. Further, it enhances the group's reputation for violence although evidence of this violence may be completely absent (Finckenauer 2005). For instance, having a "bad reputation" may allow access into criminal markets that would otherwise be closed to a particular criminal network (Beare and Martens 1998).

Differentiating between an organized crime problem and a crime problem that is organized has important implications on reducing or disrupting the illegal wildlife trade. Strategies to combat organized crime will differ vastly from tackling a problem that is loosely organized. For example, law enforcement would typically use costly, long-haul strategies towards organized groups to amass as much evidence as possible before making arrests (Kleemans 2007). Fewer individuals are involved in an organized crime problem and targeting such individuals could bring about ample reductions in wildlife crime. If, however, it is a problem of loosely organized individuals who number in the thousands, as has been reported with the illegal parrot trade in Mexico (Cantu et al. 2007), focusing on particular individuals will be ineffective in reducing the overall trade. Instead, efforts to reduce crime should be tailor-made to the specific crime situation occurring at a specific place in time (Read and Tilley 2000; Sutton et al. 2001; Ekblom 2002, 1986; Tilley and Laycock 2002).

In order to reduce the occurrence of trafficking in parrots in the neotropics, officials must not look to organized crime groups as instrumental actors. Rather, they must use these data to further explore the "what, where, when, and how" of the actual and existing crime problem instead of accepting generalized statements as fact. It is more important to understand the mechanisms and opportunities that support the existence of the specific crime at hand (Clarke and Eck 2005) rather than the "who" of the equation. In knowing these characteristics of the crime problem, allocation of limited resources can target the problem where it is concentrated in order to have the largest impact on reduction (Braga 2005). Prior research with the illegal parrot trade has already shown it is highly concentrated in time and space with species and particular methods (Pires et al. 2015), thereby making it easier to tackle the problem through strategic interventions. In the present study, many Bolivian participants divulged that farmers are hiring poachers to capture crop pests with mist nets from their agricultural fields. Policy makers might want to consider legal alternatives for removing the birds from fields so that the farmers do not have to turn to illegal means such as poaching and trafficking. Perhaps the use of loud-sound producing apparatus (Haughney 2012) or the introduction of birds of prey that were used in London's Trafalgar Square to curb the large pigeon problem could be instituted instead of killing, trapping or selling the species (BBC News 2003). Another alternative would be to regulate the capturing and trading of crop pest species to appease farmers and provide a source of income for trappers and traders (Pires 2015a).

## Conclusions

Interviewing actors in the illegal wildlife trade can elucidate the nature and organizational structure of the trade, which can guide policy interventions to reduce poaching, trafficking and selling of illicit wildlife. With the exception of a handful of studies (Moreto et al. 2015; Warchol et al. 2003; Wyatt 2009, 2014), qualitative work is uncommon in this field. This is unfortunate, as much can be learned through this method that cannot be discovered through quantitative analysis alone. Our study found that the illegal parrot trade in two neotropical countries is a crime that is organized, not an organized crime problem. A number of factors may explain why this might be. For one, demand for illegally caught parrots is greater at the local level than it is at the international level. It is not altogether difficult for an ordinary individual within a range country to poach a bird and sell it to a middleman, market seller, or consumer in a reasonable amount of time without traveling too great a distance. In other words, the trade does not require much criminal sophistication nor organization. Secondly, law enforcement in neotropical countries does not consider this problem very serious and will often look the other way (Herrera and Hennessey 2007; Pires et al. 2015). Because of this, ordinary individuals are not afraid of taking natural resources from the wild, thus there is no gap or need to meet demand and there is no incentive for organized crime groups to enter the fold. These contextual factors help explain why organized crime has not been involved in the Bolivian and Peruvian illegal parrot trade. This said, such factors may be absent in other countries with trafficking of other flora and fauna. Future research in the field of

wildlife crime should examine how the organizational structure of trade in other species compares to the results from the present study.

**Compliance with ethical standards**

**Ethical approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

**Human and animals studies** This article does not contain any studies with animals performed by any of the authors.

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