

**The Wolf's Comeback in France:
A Content Analysis of National Press Coverage**

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ABSTRACT

After having disappeared from France for over half a century following extensive extermination efforts, the wolf naturally recolonized the French Alps in 1992. Although efforts to conserve wolf populations in France have been successful, with a current estimated population of 250 individuals increasing at a yearly rate of around 20% (ONCFS 2012), social conflicts have increased as the predator gradually reclaims its former habitat. National media plays a role in informing, reflecting, and shaping the national debate on wolves, and was considered in this study to address questions of media fairness and as a way to gain an improved understanding of the human dimensions of wolf management. Content analysis was performed on 370 articles on the wolf's return from three national newspapers, *Le Monde*, *Le Figaro*, and *Libération* from 1992 to 2013. The conflicts that have historically been the main reason for wolf control, conflicts with human economies and livelihoods, dominate the media and outdo the rationale behind wolf protection presented in the media, primarily focused on the predator's legal protection status and vague existence value. The wolf was generally represented as a perpetrator, the population size was represented as abundant even when the wolf was extinct, and the population's impact was depicted as highly negative overall.

KEYWORDS

Canis Lupus, Media, Wildlife, Co-adaptive Management, Pastoralism

INTRODUCTION

Once the world's most broadly distributed mammal, the gray wolf (*Canis lupus*) declined in Europe as a result of human extermination efforts involving firearms, poison, and traps, and habitat fragmentation that confined it to sub-optimal areas far from human settlements in southern and northeastern Europe by the 1970s (Deinet et al. 2013, Zimen and Boitani 1979). Primarily driven by deep-rooted, negative images of the species based on fear of wolf attacks on humans and the loss of livestock to wolf depredation, wolf extermination efforts were institutionalized in France starting in the year 831 by Charlemagne and intense persecution efforts led to the complete disappearance of the wolf in France by 1930s (Beaufort 1987, Bernard 2000). Starting in the 1970s, scientific and public pressures stemming from new environmental awareness and concerns led to the development of environmental laws, and France signed international agreements, namely the 1979 Bern Convention on the Conservation of European Wildlife and the 1992 Fauna and Flora Habitats Directive, designating wolves as a species of "community interest" requiring legal protection and conservation (Salvatori et al. 2005, Loubert-Davaine 2004). This favorable status, coupled with increased forest protection, more abundant and diversified ungulate populations, and the species' extreme resilience and mobility, resulted in the wolf recolonizing France from the Italian Alps, with its first sighting in the Mercantour National Park in 1992 (Maillard et al. 1999, Campion-Vincent 2000). The wolf, a common motif in the foundational mythologies and cosmologies of peoples throughout Eurasia and North America, occupies a special place in the relationship between humans and their natural environment (Donalson 2006, O'Rourke 2000). It has been a companion and competitor with humans, possessing similar social systems, hunting needs and strategies, territoriality, as well as behavioral and ecological flexibility (Boitani 2000, Enserink et al. 2006). Human attitudes toward the wolf are rarely indifferent, ranging from fear and terror to profound fascination and admiration (Boitani 2000, Butler et al. 2003, Muyard 1998). The predator's historical and cultural context is unique, and the reintroduction and management of such a predator is as much a socio-political issue as an ecological one.

Although efforts to reintroduce and conserve wolf populations in France have been successful, with a current estimated population of 250 individuals increasing at a yearly rate of around 20% (ONCFS 2012), social conflicts have increased as the predator gradually reclaims its

former habitat. Today, most French people believe that wolves have their place in France, but 20% are still somewhat or completely in favor of eradication (IFOP Sept 2013). The carnivore's increased population and widening range has sparked heated debates between environmental groups and rural pastoralists, as the wolf's predatory behavior often conflicts with economic activity, especially sheep farming (Campion-Vincent 2000, O'Rourke 2000). The different interests and priorities of stakeholder groups, including breeders, government officials, hunters, and non-profit organizations, underpin significant differences in how the wolf situation and management strategies are perceived (Lalo 2012, Bath 2000). Since 2000, National Wolf Action Plans, jointly commissioned by France's Minister of Ecology and Minister of Agriculture, define state wolf management objectives and strategies, such as implementing monetary schemes to compensate pastoralists for lost livestock, urging preventative methods such as the use of fences and guard dogs, developing monitoring programs, disseminating information, guiding research, coordinating collaboration efforts, and even authorizing culls (Molnar 2011, Deinet et al. 2013). These Plans have established a consultative body, the National Wolf Group, comprising representatives of government departments, public institutions, the technical field, the pastoralist community, the hunting world and environmental protection associations (Plan 2013-2017, Appendix D). As management strategies have been developed, biologists, managers, and government officials recognize the importance of considering and understanding the social nature and human dimensions of wolf reintroduction.

By serving as a source of information and a forum for public opinions on wolves through reporting on wolf attacks, management plans, and protests, etc., national media has a role in informing, reflecting, and shaping the national debate on wolves, and can therefore offer a lens for understanding the human dimensions of wolf management (Bengston et al. 1999, Bengston et al. 2005). Media can play a critical role in mobilizing public opinion and awareness about environmental issues, and the notion that the media can frame issues and influence the importance of issues for the public has been referred to as the "agenda-setting" hypothesis (Houston 2009, McCombs and Shaw 1972). The effect of media on issue salience for the public is particularly important for issues with which the public has little direct experience, such as the wolf comeback, an issue that is largely limited to rural and remote communities (Ader 1995, Houston 2009). Studies considering the human dimensions of wolf management have pointed out that when media publicizes issues surrounding wolf recovery, the public gains "an

exaggerated impression of the problem” and this creates “a strong backlash of anti-wolf sentiment,” influencing management practices (Mech 1995). For example, it has been argued that impressive, large-scale wolf attacks are “widely reported in the newspaper,” generating “[vociferous] hostility both to wolves and to the movement to protect them” (Zimen 1978). These sentiments were echoed in the concerns of stakeholders in a study examining public attitudes toward and beliefs about wolves and wolf management in two provinces in France; two of the interest groups interviewed, the environmental organization FRAPNA and the French Federation of Hiking, identified media coverage of the wolf as a key issue and proposed greater “media fairness” as an important solution to conflicts (Bath 2000). In a news article discussing the population’s expansion and the controversial nature of acknowledging new sightings and wolf presence, experts from the ONCFS, the government bureau that oversees wildlife and hunting, go as far as to speak of “media psychosis,” blaming the media of not observing a great enough “distance” from the animal, and accusing the media of relaying the general psychosis of the French people (Libération 2008 L_068). On the other hand of the spectrum, others believe that the general public is unaware of the real damages and nuisance the wolf represents. For example, breeders and hunters have argued that environmentalists who are not directly influenced by wolves are better organized and better at expressing themselves than those affected, and therefore have a greater presence in the media and influence on public opinion (Libération 2005 L_081, Le Monde 2004 M_096). Overall, although these different dynamics have been present since 1992 and media bias is often brought up in discussions of the conflict, the French media’s coverage of wolf conflicts has never been formally studied. A quantitative content analysis of a decade of North American media found that attitudes toward wolves represented were largely negative and became more negative over time (Houston 2009). There is a lack of comparable research on French media regarding wolf issues. An understanding of French media can help create a healthier debate, as well as assist management agencies and stakeholders in dealing with the human dimensions of the conflict and developing effective wolf conservation policies, programs, and campaigns.

The objective of this research is to provide an objective overview and understanding of national wolf media coverage by addressing the following questions: What characterizes wolf reintroduction issues in the national French press? Has national news media coverage changed since 1992 and is wolf media coverage uniform across different newspapers? To answer, I will

identify the articles in the three most widely read French national newspapers pertaining to the wolf's comeback and conflicts surrounding it. I will then complete a content analysis of the articles guided by the following sub-questions: (a) When and in what forms are the wolf and wolf comeback conflicts entering the press? (b) What is driving press coverage? (c) Who are the main actors represented? (d) How is the wolf being portrayed? (e) How are the wolf population and the population's impact being represented? (f) What locations are associated with the wolf and conflicts surrounding wolf recovery?

METHODS

Data collection: Identifying Media Sources

To document newspaper coverage on wolf return conflicts in France, I sampled the three major national quality dailies, Le Monde, Le Figaro, and Libération. These target an educated readership comparable to the Times, the Independent, and the Guardian in the UK or the New York Times, Wall Street Journal, or Washington Post in the US, although the quality of French dailies is generally more intellectual and left of their English language counterparts (About-France 2012). The conservative Le Figaro, founded in 1862, is the most popular, with an average circulation of 321,000 in 2011. Le Monde, founded in 1944, is considered the paper of the establishment, and had an average daily circulation of 286,000 in 2010. It is generally considered to be a Center-Left newspaper, and seen as the newspaper giving the most detailed coverage of world events and of politics, acting as a major forum for political and intellectual debate and discussion. Finally, Libération, founded in 1973 by left wing intellectuals, is the most socio-liberal newspaper of the three and had an average circulation of 119,000 in 2011. I sampled all articles available online from 1992, the year marking the official return of the wolf in France, to the end of 2013. Online article archives were a limiting factor, as articles were only accessible starting in 1994 for Libération and 1997 for Le Figaro.

In searching for articles in the publications' online databases, I identified and used search terms that avoided irrelevant articles, allowing me to collect and download the population of articles of interest. Given the purpose and readership of these news sources, their articles regarding wolves did not consistently include the genus and species epithet *Canis Lupus*.

However, the common French term for wolves, *loup*, was an insufficiently narrow qualifier. For example, search engines returned articles featuring numerous unrelated words, such as *Jean-Loup*, a popular first name, *louper*, the verb ‘to miss,’ and *une loupe*, or ‘magnifying glass,’ resulting in very high result counts (Table 1). In addition, search results were often ambiguous because wolves are frequently used symbolically in figures of speech, such as lone wolf terrorism, or *loup solitaire*. To resolve these issues, I looked for other words I could pair *loups* with to lead me to articles of interest. For example, the number of search returns dropped when I paired the term *loups* with *éleveurs*, which translates as ‘breeders’, or *Mercantour*, the national park where the wolves first reentered France in the early 1990s (Table 1). To find more search terms beyond these two words, I considered the search terms recommended by Le Figaro (Figure 1). Based on how well they helped filter out irrelevant articles, I deemed an additional 9 terms (those with asterisks in Figure 1) useful in narrowing down articles to sift through.

Table 1. Search result counts by search term and newspaper. These are all the results unfiltered returned from searching the online archives on November 22nd, 2013.

	Le Monde (1992-2013)	Libération (1994-2013)	Le Figaro (1997-2013)
<i>Loups</i>	9,140	1,000+	645
<i>Canis Lupus</i>	38	23	32
<i>Loups Mercantour</i>	98	55	42
<i>Loups Eleveurs</i>	204	154	49

En savoir plus

- › attaques de loup
- › présence du loup
- › Baby loup
- › Misha Defonseca
- › Dabadie
- › Véra Belmont
- › Julia Bastide
- › protection des troupeaux
- › Guy Bedos
- › crèche Baby
- › Mercantour
- › tirs de prélèvement
- › Espèce protégée
- › tirs de défense
- › Canis
- › Office national
- › plan loup
- › Mathilde Goffart
- › protection du loup
- › retour des loups
- › Jean-Loup
- › faune sauvage
- › ONCFS
- › loup en France
- › Aspas
- › lieutenants de louveterie
- › meute de loups
- › Gilles Legrand
- › bêtes tuées
- › Chanteloup-les-Vignes

Figure 1. Le Figaro “Learn More” recommendations upon searching for *Loups*. Of the 30 recommended terms, 19 are actually related to wolves.

Table 2. Le Figaro recommendations. The 19 recommendations that were related to wolves with the exception of 'Canis' and 'Mercantour' which were previously considered (Table 1), and the counts of Libération articles associated with the terms found from searching the online archive on November 22nd, 2013.

Related Search Terms (As recommended by <u>Le Figaro</u>)	Translation	1994-2013 <u>Libération</u> Results (pairing new search term with <i>loup</i>)
<i>Attaques de loup</i>	Wolf attacks	821
<i>Présence du loup</i>	Wolf presence	608
* <i>Protection des troupeaux</i>	* Protection of herds	69
* <i>Tirs de prélèvement</i>	* Prescribed kill	30
* <i>Espèce protégée</i>	* Protected species	67
<i>Tirs de défense</i>	Kill in defense	138
<i>Office national</i>	National Office	123
<i>Plan loup</i>	Wolf Plan	1,000 +
<i>Protection du loup</i>	Wolf protection	424
<i>Retour des loups</i>	Wolf return	1,000 +
* <i>Faune Sauvage</i>	* Wildlife	82
* <i>ONCFS</i>	ONCFS (organization)	21
<i>Loup en France</i>	Wolf in France	1,000 +
* <i>Aspas</i>	* Aspas (organization)	12
* <i>Lieutenants de Louveterie</i>	* Wolfcatcher Royal	11
* <i>Meute de loups</i>	* Wolf pack	145
* <i>Bêtes tuées</i>	* Animals killed	27

Finally, to attempt to generate the census of articles of interest, I skimmed through the articles accessed by these new search terms methods and removed ones in which the terms were used as figures of speeches or in very brief passing to report on unrelated issues. I only selected articles that discussed wolf conflicts in France specifically. I downloaded each article of interest and gave each an article ID: L, M, or F for Libération, Le Monde, and Le Figaro respectively, followed by a unique number. I compiled information on articles in an excel database, initially attaching author, date, title, and subtitle information to each article ID. This allowed me to easily find overlap between articles accessed under different search terms, which was very frequent. For example, if an article included the words *Loups*, *Mercantour*, and *Éleveurs*, it showed up in two searches but was only downloaded once and given one ID. Although these methods realistically could not have lead to an absolutely exhaustive list of articles of the subject of interest, also known as a census, they offered a realistic way to search through archives and came up with good results. For example, I examined the 262 Libération articles resulting from a search

using only *loups* on a 6-month window, specifically from May 22nd, 2013 to November 22nd, 2013, and did not find any articles of interest that I had missed.

Data Collection: Content Analysis Codes

I used content analysis to impose an order and grasp the meaning of a wide range of phenomena characterizing media content (Appendix B). Given that textual analysis is inevitably selective, my ordering process singled out the key features that I felt most saliently described how wolf return representations entered national discourse through national news (Fairclough 2003). My approach to content analysis is best described as using content analysis with a discourse analytic approach (Table 3, Appendix B).

Table 3. Using Content Analysis within a Discourse Analytic Approach (Hardy et al. 2004)

Dealing with Meaning	There is no inherent meaning in the text; meanings are constructed in a particular context; and the author, consumer, and researcher all play a role. There is no way to separate meaning from context and any attempt to count must deal with the precarious nature of meaning.
Dealing with Categories	Categories emerge from the data. However, existing empirical research and theoretical work provide ideas for what to look for and the research question provides an initial simple frame.
Dealing with Technique	The categories that emerge from the data allow for coding schemes involving counting occurrences of meanings in the text. Analysis is an interactive process of working back and forth between the texts and categories.
Dealing with Context	The analysis must locate the meaning of the text in relation to a social context and to other texts and discourses.
Dealing with Reliability	The results are reliable to the degree that they are understandable and plausible to others i.e. does the researcher explain how he she came up with the analysis in a way that the reader can make sense of?
Dealing with Validity	The results are valid to the degree that they show how patterns in the meaning of texts are constitutive of reality.
Dealing with Reflexivity	To what extent does the analysis take into account the role that the author plays in making meaning? Does the analysis show different ways in which this meaning might be consumed? Is the analysis sensitive to the way the patterns are identified and explained?

I allowed categories to emerge out of an initial assessment of the articles during excel database assembly and article downloads. I also used categories and methods from other studies when applicable. Categories were constructed and finalized in an iterative process that involved

subsuming old categories and creating new ones as I read and downloaded more articles. I did not seek, nor was it possible, to draw out a rigorous, fully fleshed out coding scheme listing every instance that led to every decision. Instead, I acknowledged and embraced my approach's reliance on interpretive skills to grasp the meaning of texts, and relied on a second reader to deal with reliability and validity. I initially trained a bilingual research assistant to serve as an intercoder and code a set of 8 randomly selected articles. This led to useful discussions about ambiguous scenarios and helped me think critically about my methods and revise my categories to address coding disagreements. I then coded 45 randomly selected articles and had the re-trained intercoder do the same. Both of our results were independently entered into identical excel tables. The excel tables allowed me to calculate the simple agreement, or the "proportion of times coders applied the same code for a given variable and case," between my results and the intercoder's results for each variable (Siemer et al. 2007). The simple agreement level was 90% or higher for all variables. This ensured that my process condensed all of the articles into categories and themes based on valid inference and interpretation. In other words, it ensured that the coding instrument was consistent with its measurement objectives (Lombard et al. 2002).

Table 4. Basic Content Analysis and Coding framework.

Guiding sub-questions for each article	Information input into excel for each article
(a) When and in what form did it enter the press?	- Newspaper section - Article length (word count) - Article appearance (year)
(a*) Is major legal protection mentioned?	- Bern Convention + Habitats Directive
(b) What factor drove its publication?	- Episodic or thematic? - Primary or Secondary? - Identify main driving factor [Mutually exclusive categories]
(c) Which actors were mentioned?	- Identify actors that fit into the key actor categories developed
(d) How did it portray the wolf? i. In the title alone ii. In the article as a whole	- Victim, Perpetrator, Both, or not applicable?
(e1) How did it represent the size of the wolf population?	- Abundant, Adequate, Endangered, or not applicable?
(e2) How did it represent the wolf population's impact?	- Beneficial/Important, Neutral, Negative/Destructive, or not applicable?
(f) What locations did it mention?	- Take note of all locations - Identify departments of locations

Expanding on the basic coding framework (Table 4b), to begin understanding how wolf issues were represented in the media, I determined if articles were episodic or thematic, and primary or secondary. I followed the methods used in a study of media frames for black bear management stories to determine if articles were episodic or thematic (Siemer et al. 2007). I coded articles as episodic when they focused on specific events, such as articles about a wolf sighting, discussing a recent legal decision, or reporting on a sheep killing. “Human interest stories” and “descriptive pieces” were among those classified as episodic, such as stories focused on how a breeder’s life was affected by the wolf’s return (Siemer et al. 2007). I coded articles as thematic when they focused on broad “conditions or outcomes,” such as articles that discussed the wolf in the context of broader environmental issues, analyzed the impact of wolf management policies over time, or offered extensive history or background on the wolf’s return. Overall, articles that included a small thematic element, such as a thematic opening or conclusion, but were predominantly episodic were coded as episodic, in the same way that articles that discussed specific events in a broader, thematic story were coded as thematic (Siemer et al. 2007). I loosely followed the methods used in a content analysis of newspaper coverage of the Florida Panthers to determine if articles were primary or secondary (Jacobson et al. 2011). I coded articles as primary if wolves were the main topic of the article, and as secondary if wolves were discussed in relation to another topic, such as nature, bears, or government policies.

To determine how the wolf was portrayed (Table 4d), I expanded on the methods of a study that adapted the notions of “victim” and “perpetrator,” notions applied to many disciplines such as domestic abuse, to the context of human-cormorant conflicts (Muter et al. 2009). Victims are usually defined as innocent and unsuspecting, receiving harm or negative effects, while perpetrators inflict harm or negative effects. Some environmental studies have applied this analytical framework to analyze interactions between humans, animals, and the environment, usually centering the human as the perpetrator of interest, but my research extended the concepts of victim and perpetrators to wildlife, in the same way the cormorant study did (White 2008, Muter et al. 2009). I coded wolves as victims when a news story placed emphasis on them receiving some negative effect or risk and as perpetrators when they were instead a source of some negative effect or risk. My methods deviated from the cormorant study’s in some ways as I coded articles that depicted wolves as both victims and perpetrators in comparable ways as

“both,” and recognized that some articles did not portray the wolf in any significant way and could not be coded. To characterize headlines, an area of particular concern by wildlife organizations for their sensational nature, I coded for portrayal twice, once from the article title alone and once from the article as a whole (Pybus 1992).

Data Analysis

After a 5-month process of reading and coding articles to update the excel article database with the information found from each article (Table 4), I used different computer programs to summarize basic identifying characteristics, calculate the frequencies of each code, and visualize the data. I used Microsoft Word's word-count tool on each article and created histograms and boxplots in R to find and summarize article length (R Development Core Team 2011). To consider the number of articles published over time, I found the number of articles per year using the table filter tool in excel and the subtotal countA function, and created a straight marked scatterplot in excel to visualize the data.

To analyze changes in media coverage from 1992 to 2013, I divided the research time frame into three time periods. This ensured that each time period was still represented by a large number of articles. Instead of dividing the time frame into precisely equal time periods, I aligned the breaking points with the 2000-2004 LIFE Nature National Wolf Action Plan, and the 2008-2012 National Wolf Action Plan, with my final three time periods defined as follows: 1992-2000 (not inclusive), 2000-2008 (not inclusive), and 2008-2013.

To allow for comparisons between time periods and across newspapers, I transformed nominal data into ratio data because the number of content units, or articles, varied across newspapers and over time. To calculate the frequencies of articles coded as each category by time period, by newspaper, and overall, I used the table filter tool, the subtotal countA function, and simple formulas to find article percentages. The percentages were always calculated using adjusted totals, or totals that did not take into account articles for which questions of interest did not apply. To visualize the tabulated data, I created clustered column graphs and 100% clustered column graphs in excel.

RESULTS

Content Analysis

Basic identifying characteristics (a)

I identified 370 articles, with approximately a third coming from each newspaper: Le Figaro (n=134, 36%), Le Monde (n=128, 35%), and Libération (n=108, 29%). Although section information was not available for all articles, drawing from the available section names, it was clear that articles on the subject matter were found in a wide variety of newspaper sections, including sections titled Politics, Economy, Special Report, Sports, and Events, to name a few. In Libération, articles fell in a broad range of sections and were found in 18 of the newspaper's 25 total sections. However, the newspaper's Environment section, followed by the Society and France sections featured the majority of the identified articles (n=82, 75%).

Articles varied in length, with the shortest article being a 27-word news brief on a court decision (L_016) and the longest being a 3,257-word secondary article addressing the work of a secretary of the environment (M_112). The longest primary article was 2,740 words nonetheless, and offered a detailed report of the wolf in honor of a national conference focused on the wolf management taking place the same week (L_006). Overall, approximately a quarter of articles were brief, defined as under 150 words in length or around a paragraph (n=76, 25%) and a quarter of articles were long, defined as more than 800 words in length or over around two pages (n=88, 28%)(Figure 2). Articles from Le Monde were the longest on average, while Libération published the greatest amount of news briefs (Figure 3).

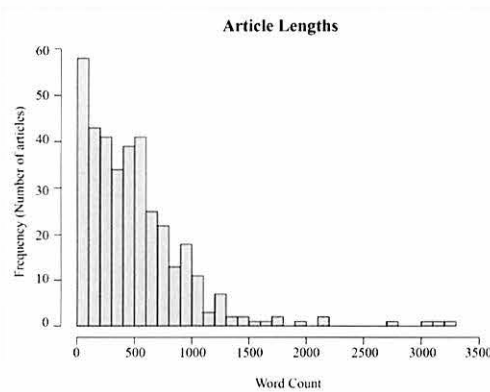


Figure 2. Lengths of all articles, using word count as the unit of measure.

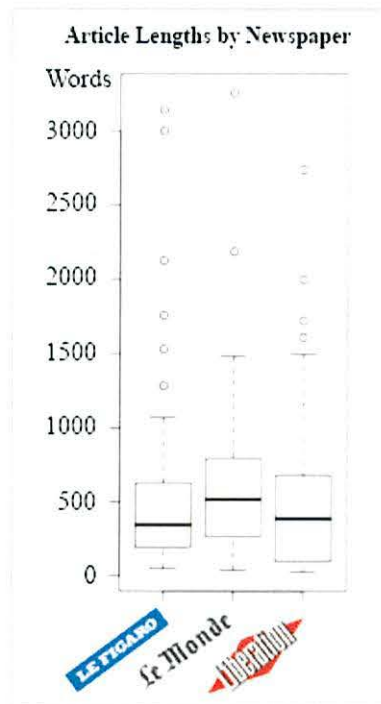


Figure 3. Lengths of articles by newspaper, using word count as the unit of measure.

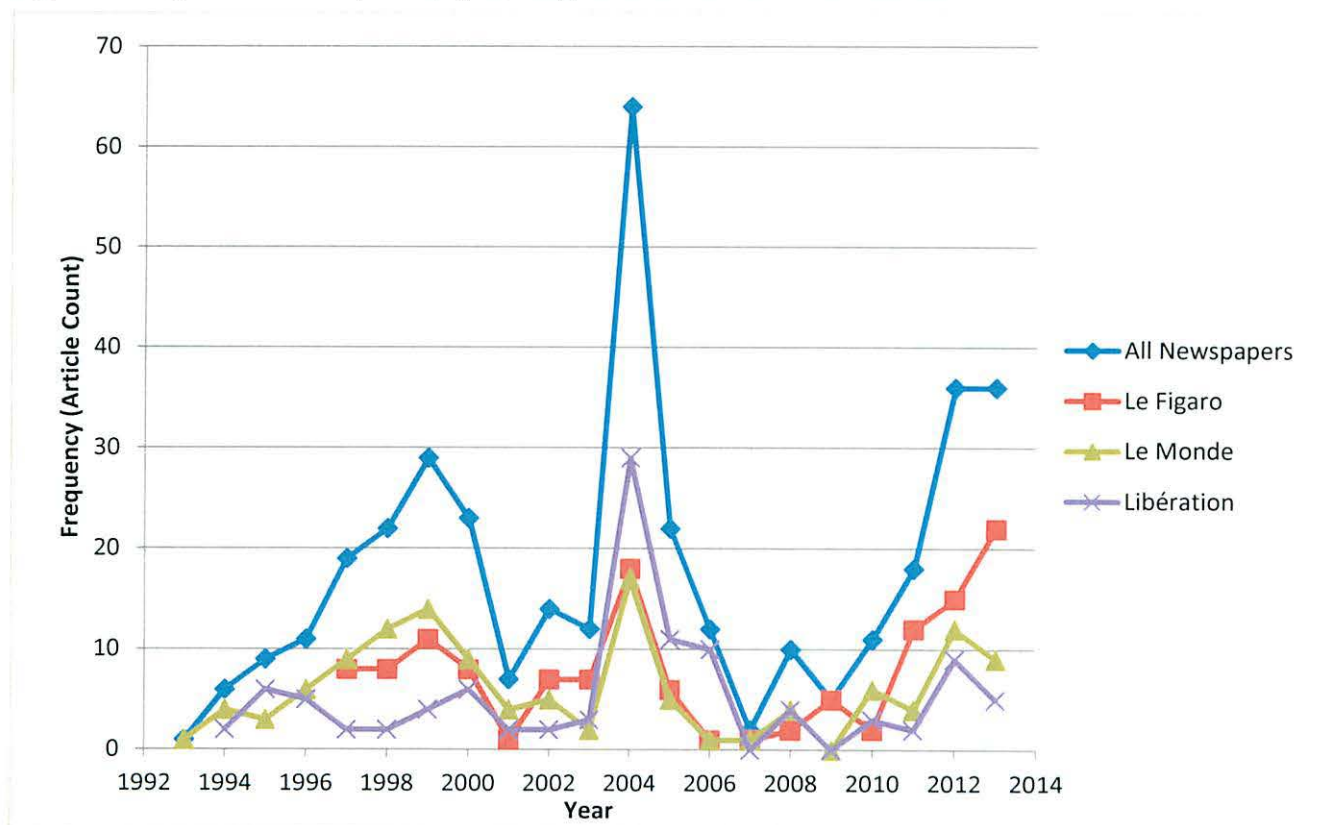


Figure 4. Total number of articles per year and by newspaper from 1992 to 2013 (n=370). Le Figaro archives were only available starting in 1997 and Libération archives in 1994.

Articles relating to the wolf's return and conflicts did not appear in the press in a uniform way, and the three newspapers follow similar coverage trends (Figure 4). The greatest amount of articles was published in the year 2004 (n=64, 17%), and within that year, over a third of articles were published in the month of August (n=23, 35%). The fluctuations in the frequency of articles over time loosely coincide with our three predetermined time periods: 1998-2000, 2000-2008, and 2008-2013. The year 2001 and 2007 (n=7 and n=2, 2% and 1%) marked significantly low points in wolf press coverage.

Throughout the coding process, I kept count of references to the agreements binding France to wolf protection. The 1979 Bern Convention on the Conservation of European Wildlife was mentioned in a fifth of the articles (n=74, 21%), and the 1992 Fauna and Flora Habitats Directive was mentioned in a tenth of the articles (n=36, 10%).

Driving Factors (b)

I identified 11 main driving factors and added a category for the articles that did not fit any category (Table 5). The majority of articles identified were primary articles, with only about a tenth of the articles classified as secondary (n=44, 12%). In addition, a majority of articles were episodic, with only a fifth of articles treating the subject matter more thematically (n=73, 20%).

Table 5. Driving factors and examples of driving factor indicators from texts.

Driving Factor	Indicator example
Policy Change	"The prefect of the Var authorized one wolf sampling (shooting) to protect domestic herds that graze on the military camp Canjuers." F_095
Investigation, editorial	"Editorial: A genuine biodiversity policy cannot be satisfied with a few symbolic actions surrounding flagship species (bear, wolf, albatross...) and the creation of protected areas. It must address the underlying problems and develop a comprehensive and coherent strategy throughout the country." (M_133)
Wolf Violence	"Three sheep were killed by a wolf in the night of Monday to Tuesday while they were in a closed park, near a barn at Dévoluy (Hautes-Alpes), according to their breeder" (L_057). "A horse was killed and another injured in an attack by wolves on a herd of horses and hitch hiking to Auron in the Southern Alps region (...) [even though] the animals were grazing in an electrified park." (F_093)
Violence Against Wolves	"The prefecture of Isère announced that the corpse of a large canid, most likely a wolf, was discovered Friday in the Vercors (...) and that initial

	findings suggest it was the victim of a shooting." F_107
Protest	<p>“Protesters marched to the city of Nice with two thousand sheep according to shepherds, and one thousand according to police headquarters, (...) to express their fundamental disagreements with those advocating the return of the wolf in the Alpes-de-Haute-Provence.” (M_013)</p> <p>“Those in defense of wolves blew a bridge in the town of Utel, near Nice, in the night of Thursday to Friday, assuring that they would continue protests and that "Hunters will have to pay for everything they have done against the wolves" (L_044)</p>
Scientific study, finding	“[Italian] researchers (...) were able to follow the daily path of a predator named Libague, through SMS messages sent every six to twelve hours [from a GPS collar],” confirming that wolves can easily travel from Italy to France naturally. (M_045)
Legal, courts	<p>“The administrative court of Toulon, in two rulings on December 13th, decided that the area authorized by prefectural orders for wolf shooting on November 22, spanning 19 municipalities, was too wide and not consistent with the grazing area affected by the attacks of wolves.” (F_133)</p> <p>“This is a first for courts in France: a breeder in the Hautes-Alpes was indicted last Thursday by an investigating judge in Gap for destruction of a protected species after admitting that he had killed a wolf. He faces six months in jail and a fine of € 9,000.” (F_059)</p>
Organization Press Release	<p>“The Alpine Federation of Isere voiced concerns about the proliferation of attacks flocks in a letter to the prefect of the department on August 4th” M_067</p> <p>“[According to a statement,] the Association for the Protection of Wild Animals (ASPAS) is (...) [denouncing] José Bové, a member of the European Parliament and anti-globalization activist, for inciting the destruction of a protected species" (F_098)</p>
Government official declaration	“The minister of the environment Corinne Lepage, announced Tuesday, December 3, in a statement that it she excludes any possibility of shootings against the wolf.” (M_010)
Conference, Event	“In an interview with the historian Jean-Marc Moriceau, he reminds us that living with the wolf has always been difficult (...) [He] is leading the scientific symposium ‘Living together with the wolf" this week in Saint-Martin-Vésubie.” (L_001)
Sighting	“The ONCFS is working to confirm the presence of a wolf in the Cantal allegedly seen on Sunday by two hikers.” L_009
Other	Examples: Other species (Bear, deer...), Book reviews, Travel guides, National park history, Candidate elections, Violence by shepherd dog...

The greatest factor driving coverage of the wolf's return and wolf conflicts were policy changes (n=71, 19%)(Figure 5). The frequency of this driving factor was followed by incidents

of violence inflicted by wolves (n=42, 11%), and protests (n=34, 9%). Articles directly driven by incidents of violence inflicted by wolves were less frequent than articles directly driven by incidents of violence inflicted against wolves (11% vs. 7%).

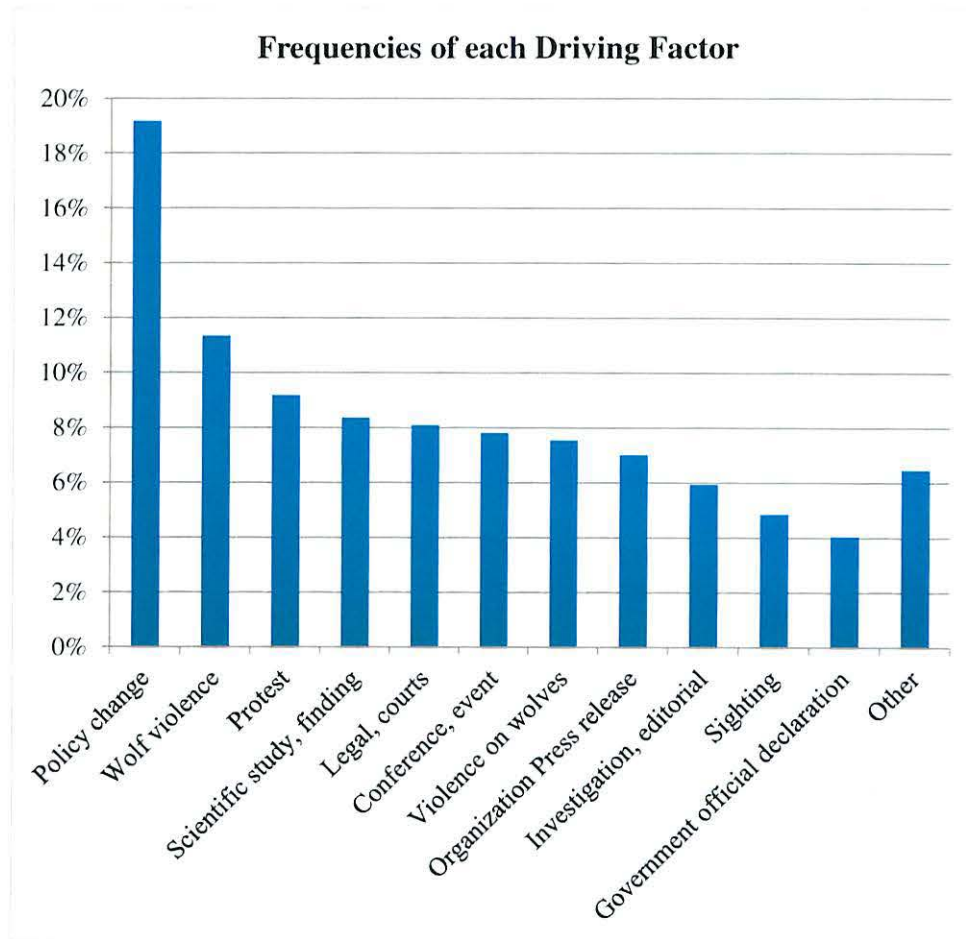


Figure 5. Overall frequencies of each driving factor. Every article was assigned the mutually exclusive category that best represented the main reason it was in the press.

There was variation between driving factor frequencies between newspapers (Figure 6). For example, while very few Libération articles were classified as wolf conflict investigation or editorial articles, many were driven by factors classified as other. Libération also had the highest percentage of articles driven by conferences and events, as well as protests, and the least driven by government official declarations. Le Figaro articles were less driven by scientific studies and findings, conferences and events, and violence against wolves than the other newspapers. Finally, the greatest percentage of scientific studies and findings, as well as investigations and editorials, were found in Le Monde.

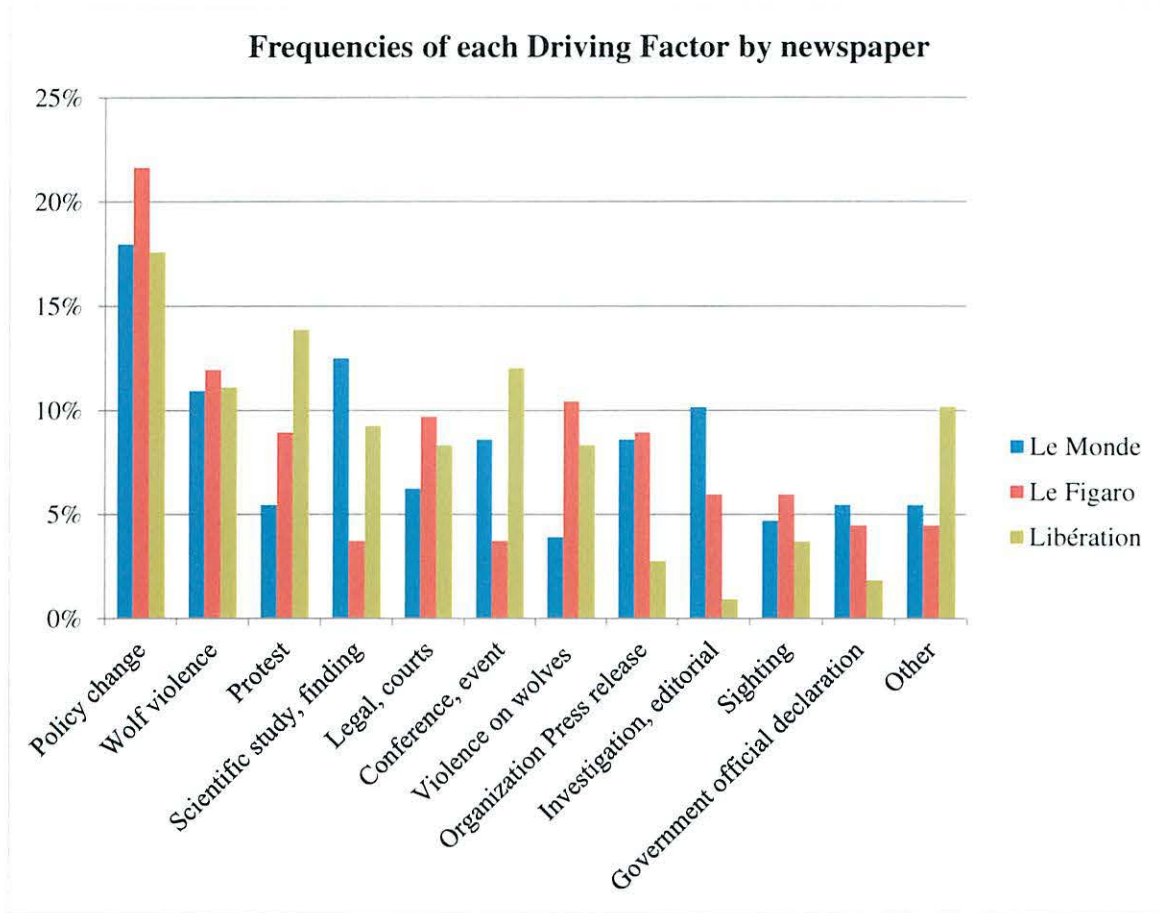


Figure 6. Driving factors behind press coverage broken down by newspaper.

Stakeholders and actors (c)

I classified the main actors mentioned as having an interest in the wolf or a role in issues surrounding the wolf in 12 main categories. Some actors were not part of the final coding protocol but were occasionally brought up, such as senators, hikers, tourists, and national park authorities. Overall, pastoralists, which included anyone working in the branch of agriculture broadly known as pastoralism, such as breeders and livestock owners, dominated the news and were directly mentioned in 77% of total articles (Figure 7). Actors referred to as environmentalists (*écologistes*) or advocates for environmental protection were categorized as environmentalists and appeared in only 20% of the articles. Environmental organizations were mentioned in 22% of articles while organized groups of pastoralists were mentioned in 16% of

articles. The dominant environmental organizations mentioned included FERUS, an organization advocating for bear, wolf, and lynx conservation in France, the Association for the Protection of Wild Animals (ASPAS), World Wide Fund for Nature (WWF), and France Nature Environnement (FNE), an organization that regroups many affiliated associations and members for the protection of nature and environment. A broad range of organizations and unions were classified as pastoral organizations, including the Fédération des Syndicats d'Exploit Agricoles (FDSEA), a union representing the interests of pastoralism, and Eleveurs et Montagnes (EM), an organization specifically focused on the wolf's impact on pastoralism. Hunters were mentioned as stakeholders in 11% of the total articles, and were generally represented by the Nationale Federation of Hunters (FNC).

The government was primarily referred to and represented through three key actors: ministers, deputies, and prefects (Table 6). France is ruled with a separation of powers between the executive, legislative, judicial branches. The executive power consists in a president who nominates a prime minister. The prime minister names other Ministers to oversee each major area of government. As mentioned earlier, the two Ministers dealing with nature and wild life issues in France are the Minister of Agriculture and the Minister of the Environment, and news coverage confirmed their important roles in wolf management. Ministers of the environment appeared in 22% of articles while Ministers of Agriculture appeared in 8% of articles. A few specific Ministers of the Environment, including Serge Lepeltier, Corinne Lepage, Delphine Batho, Nathalie Kosciusko-Morizet, Nelly Olin, Dominique Voynet, and a few Ministers of Agriculture, including Hervé Gaymard, Dominique Bussereau, and Stéphane Le Foll, came up repeatedly. The legislative power consists of two bodies: the Chamber of deputies and the Senate. The people elect deputies directly in each local area, while senators are elected by regional elected officials like mayors. A few active deputies accounted for the large majority of the actors in the "deputies, senators" category, a category found in 16% of the articles. Both Chambers can organize commissions to research and prepare legislative work on various topics. They have "rapporteurs" who investigate the issue and report to the group to make decisions, and these were often vocal in the news on the issue of wolves. Finally, prefects in each department are in charge of national interests, administrative checks, and the respect of law. They can issue administrative orders in areas falling within the competency of the national government,

including general safety, and they hold great power in terms of wolf management on local scales. Prefects were mentioned in 26% of all articles.

Table 6. Government official categories and examples of indicators from texts.

Government Official	Examples from articles mentioning actors
Minister	“The first decision Nelly Olin, [the new Minister of the Environment], made was to increase the number of wolves that can be killed in the Alps from 4 to 6.” (L_086)
Deputies, senators	“A parliamentary commission was just created [to take a look at conflicts]. (...) Daniel Chevallier, a socialist deputy of the Hautes-Alpes and the deputy in charge of reporting on the commission’s findings (the <i>rapporteur</i>) has already announced that the situation does not look good. He explained: ‘More than 300 attacks took place in 1998, which demonstrate the incompatibility between pastoral activities as they exist in France today and the presence of wolves.’” (F_033) “‘These breeders who love their animals, I saw them crying,’ said Senator Gérard Bailly (UMP, Jura) with a photo of slaughtered sheep in hand” (M_128).
Prefect	“The Prefect of Savoie authorized one wolf sampling (kill) to help reduce the number of attacks on sheep...” F_084

Scientists and researchers appeared in 15% of articles, while historians and other experts, such as ethnologists and sociologists, were mentioned in only 3% of articles. Actors were categorized as scientists and researchers if they were framed as such, meaning they were referred to as biologists, as being part of a formal study, or as belonging to a university or research institute, for example. This categorization meant that population numbers and growth rates that were found by science and researchers but not attributed to any actor did not count as a mention of scientists and researchers, for instance. The ONCFS, a French public institution of over 1,700 agents responsible for conducting studies and research on French wildlife and habitats, policing hunting, and offering technical support to policy makers, planners and managers of rural areas, appeared in 16% of total articles.

Unlike driving factor categories, actor categories were not treated as mutually exclusive. However, the unit of measure was still the article. Actors from multiple categories could be counted as mentioned in the same article, and multiple actors from one category were only counted once. For example, if the ONCFS was referenced and its scientists were also directly

mentioned in one article, both actor categories were coded as present. In addition, if an article discussed environmental groups and then loosely referred to “environmentalists” later in the article, the article was also counted as mentioning both stakeholder categories.

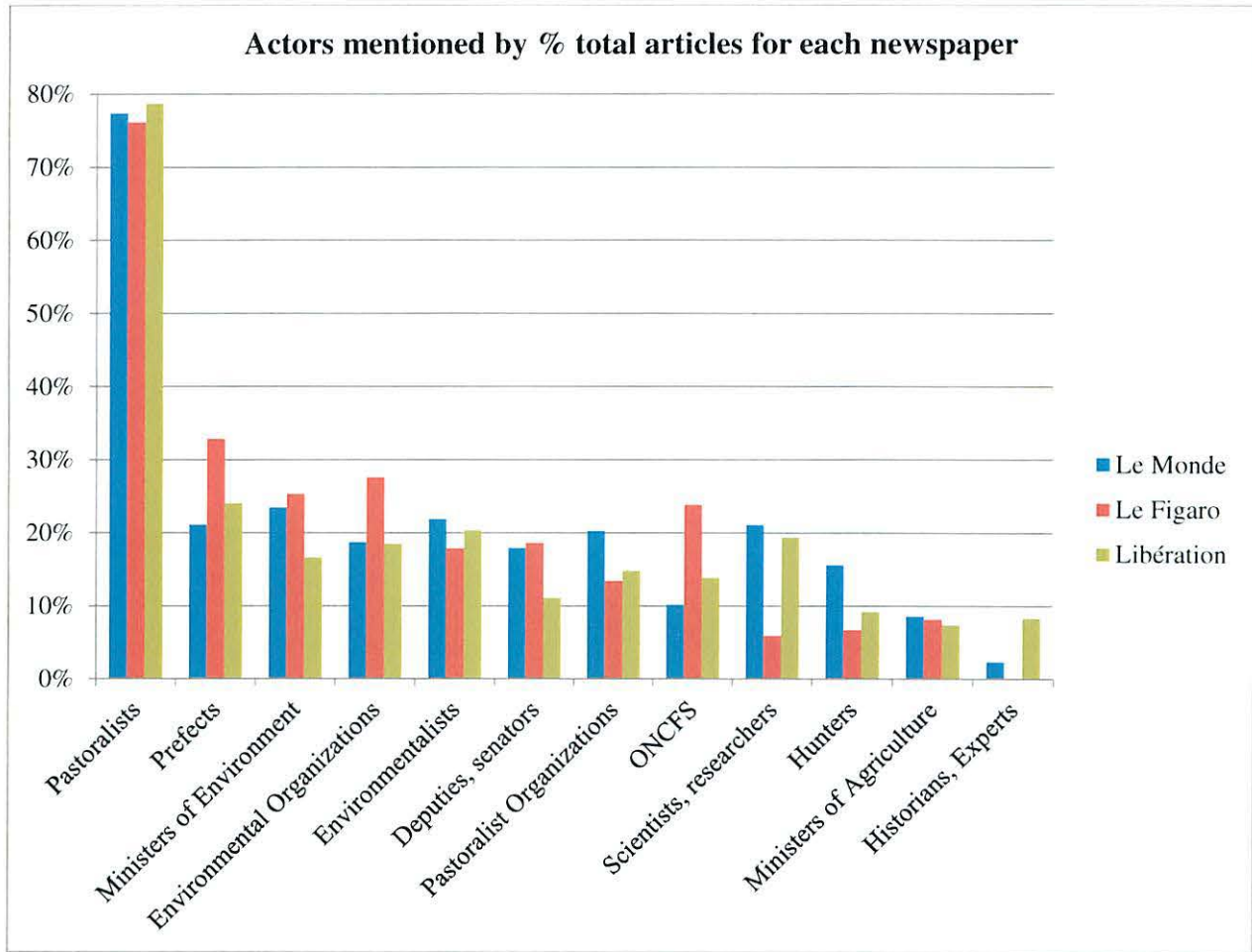


Figure 7. Relative frequencies of the appearances of the 12 different actors by newspaper. The measure of unit was articles.

In the same way that there was variation between driving factor frequencies between newspapers, there were some minor variations between the actors mentioned by different newspapers (Figure 7). However, even controlling for different newspapers, the interests and voices of pastoralists still dominated the press. *Le Figaro* mentioned the ONCFS, prefects, and environmental organizations more than the other newspapers, while it mentioned scientists and researchers considerably less. *Libération* was the only newspaper to mention non-scientific experts in a notable way, with 8% of its articles featuring actors categorized as “historians and

experts,” and *Le Monde* emphasized hunters more than the other newspapers. However, overall, the frequencies of different actors were fairly consistent across newspapers.

Perpetrator and victim portrayals (d)

I coded wolves as victims when a news story portrayed them as receiving some negative effect or risk, for example, from habitat destruction, poaching, or authorized killings. I coded wolves as perpetrators when they were portrayed as source of some negative effect or risk, for example, to livestock, the environment, hunter prey populations, or recreation (Table 7). These negative effects were considered in a broad sense. For example, an article addressing how the wolf's return has caused financial losses in the pastoral industry and required breeders to work over hours, I interpreted this as an article depicting the wolf as a threat to livelihood, and therefore as a perpetrator. However, if an article emphasized the fact the wolf is a scapegoat for a pastoral industry facing other challenges, such as pressures from economically competitive New Zealand lamb or livestock losses from wild dogs, diseases, or thunder, I interpreted this as an article depicting the wolf as receiving some negative effect, and therefore as a victim.

Table 7. Examples titles and wolf portrayal frames assigned. Basic knowledge about the wolf's situation in France was assumed in reading and coding titles.

Frame	Example	Rationale
Victim	“Environmentalists are coming to the wolf's rescue.” (F_058)	The wolf is in need of rescuing, insinuating that it is receiving some negative effect.
Perpetrator	“Horses were attacked by a wolf.” (F_093)	A wolf attacked horses, depicting it as the source of some negative effect.
Both	“One wolf kill was authorized.” (F_102)	A wolf will be shot, meaning it will receive a negative effect, but the fact that a killing was authorized suggests that the wolf was a source of some negative effect.
Not applicable	“The wolf is making its comeback across the Alps.” (M_022)	This is a statement and does not imply anything about the wolf. Other titles did not even mention the wolf in them.

I coded 36% of the articles as “not applicable” based on article title, and 13% based on article content. Comparing the codes assigned to individual articles revealed discrepancies between the way article title and actual article portrayed the wolf. Usually, they differed in the

sense that titles would frame wolves as victims or perpetrators, while articles would frame them as both. However, a few articles portrayed the wolves very differently based on the title and the article. For example, four articles depicted the wolf as a victim in the title, and yet as a perpetrator in the article. Overall, the general trends revealed by the frequencies of each frame in title and article depictions were similar in that most articles framed the wolf as a perpetrator or both a perpetrator and victim a majority of the time (Figure 8). 32% of the total titles coded depicted the wolf as only a victim, with only 11% percent of articles depicting the wolf as a victim from article content. Le Figaro portrayed the wolf as perpetrator within its article the most often, while Libération did the least often (Figure 8ab). The only time the victim only frame was the most dominant frame (45%) was from titles during the 2000-2008-time period (Figure 8c).

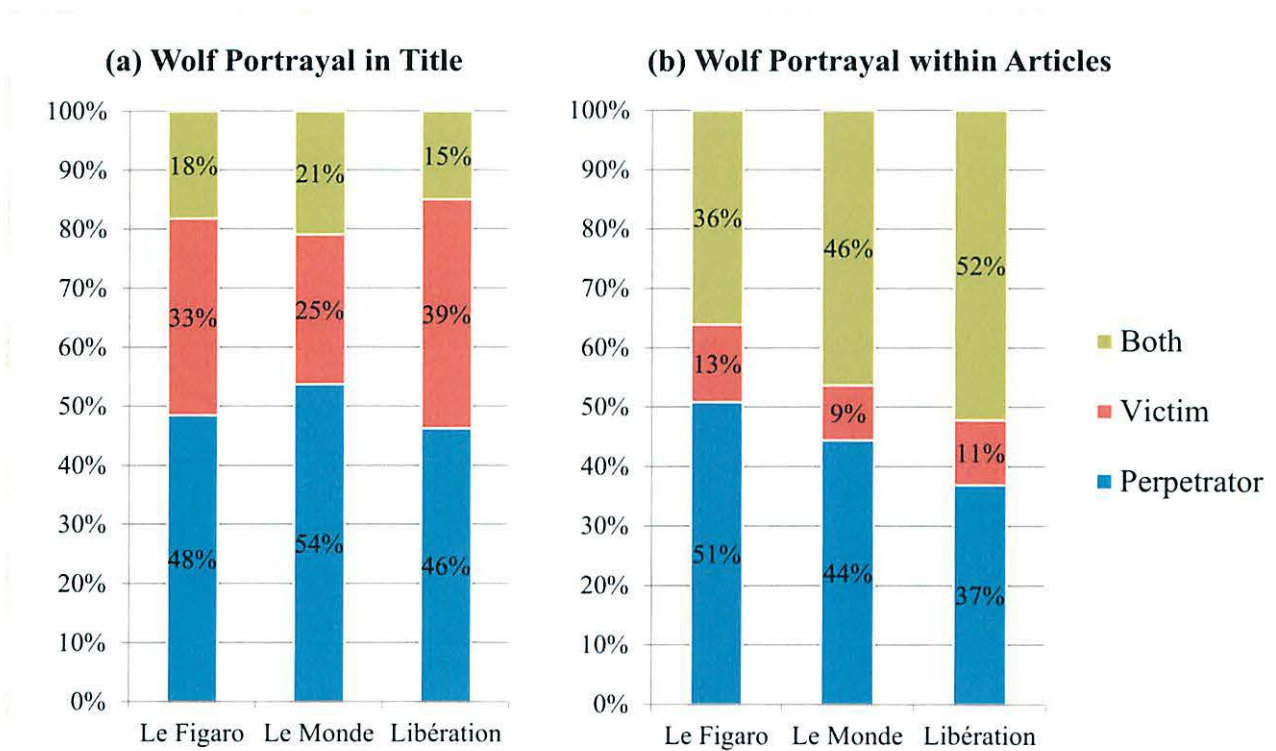


Figure 8. (Continued on following page) **Relative frequencies of the wolf being portrayed as a victim, perpetrator, or both from the title of articles (a, c) and the articles themselves (b, d), broken down by newspaper (a, b) and by time period (c, d).** The percentages represent the number of articles from each newspaper or time period representing the population or impact in a particular way, divided by the adjusted total number of articles from those newspapers or time periods. ($n_{\text{title}}=235$, $n_{\text{articles}}=322$).

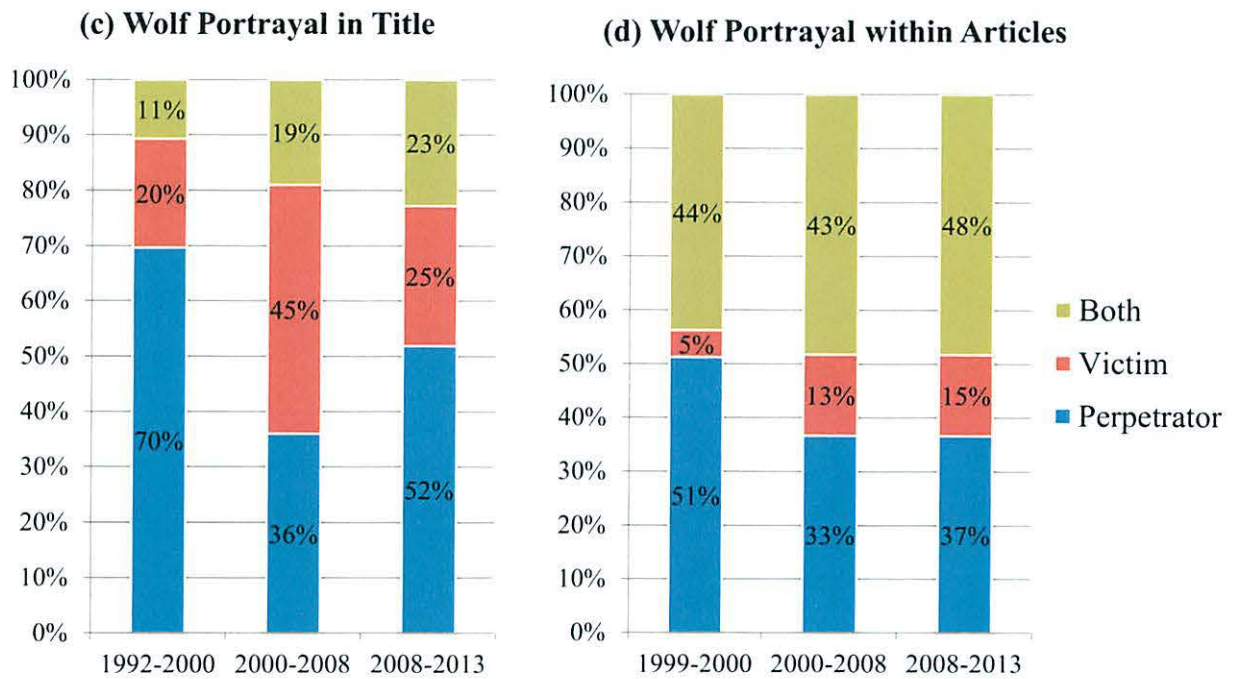


Figure 8. (Continued from previous page).

Population representations (e)

I coded a population size representation for 38% of the total articles and a population impact representation for 56% of the total articles. In terms of the population size, I coded articles as giving the impression that the population was endangered when the articles would emphasize the need for more wolves or when the articles would give a small number for the total wolf population, such as 20, and when that number lied below an explicit or implicit mention of what a viable population would constitute, for example. I coded the articles as giving the impression that the population was abundant when the articles mentioned population sizes significantly over benchmark, or emphasized sources stating that there were too many wolves in France, for example. Finally, I coded the articles as giving the impression that the population was adequate when articles lied somewhere in between the two, stating in an implicit or explicit way that the population size was reasonable. For example, an article I coded as representing the population as adequate said the following: “The total population is estimated at 55 and 60 wolves

in the French Alps, and these figures allow, according to the ministry, a culling of 10-15% without endangering the survival of the species” (M_095). Although this statement was followed up with an environment organization’s perspective on killings, it fit with a few other statements within the article to create an impression that the population was a reasonable or adequate size, being able to handle a few wolf-kills without drastic repercussions for the population.

In terms of the population impact, I coded articles as representing the wolf population’s impact as positive when they emphasized its positive role on biodiversity and ecosystems, its importance for national and natural heritage (“patrimoine”), or its beneficial role on tourist activities, for example. I coded articles as representing the wolf population’s impact as negative when they emphasized the economic burdens on people and the government, its negative impact on game, its damages to biodiversity and ecosystems, and its threat to livelihoods. Finally, I coded articles as representing the wolf population’s impact as neutral or negligible when representations lied somewhere in the middle, acknowledging that the wolf caused extensive damages but that it contributed equally important benefits.

Looking at the overall representations of population size and population impact over time and across newspapers revealed more variation than when considering perpetrator and victim frames. However, like the perpetrator frame trend, the overarching of population representations were trends that were not in favor of the wolf. Overall, 58% of articles represented the population as being abundant and 83% represented the population impact as mostly negative. Le Monde articles most frequently framed the population size as adequate. Libération most frequently framed the population as endangered, while Le Figaro most frequently framed it as abundant (Figure 9ab). All three newspapers across the board represented the population’s impact as negative a vast majority of the time (Figure9c). Again, the articles in the 2000-2008 time period leaned slightly more in the wolf’s favor than articles on average, with only 41% of articles depicting the population as abundant and 25% of articles attributing the population mainly neutral or positive impacts (Figure 9bd).

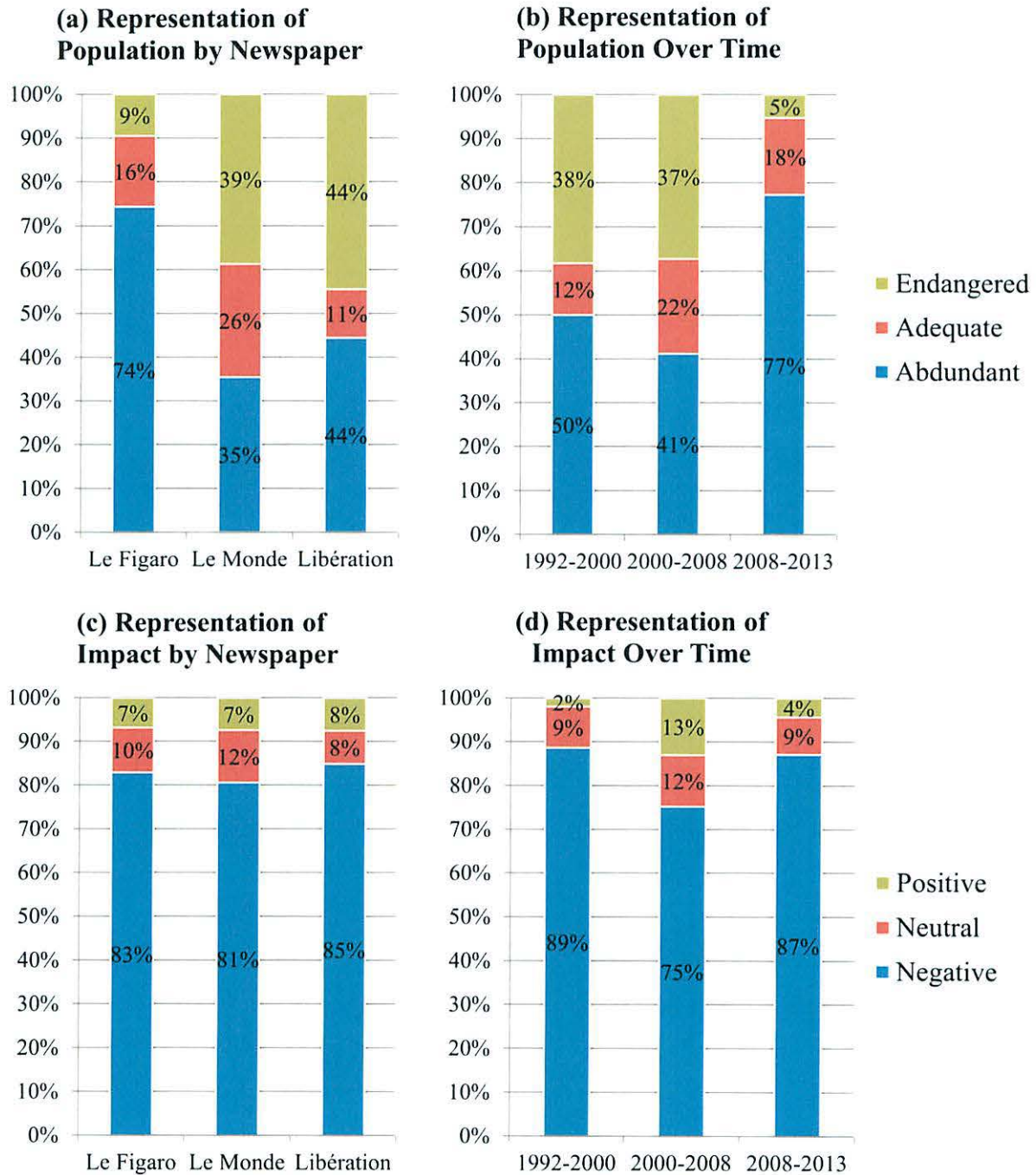


Figure 9. Representations of the wolf population's size and the wolf population's impact across newspapers (a, c) and over time (b, d). The percentages represent the number of articles from each newspaper or time period representing the population or impact in a particular way, divided by the adjusted total number of articles from those newspapers or time periods (determining a representation of population size was applicable in 141 articles, representation of population impact in 208 articles).

Locations (f)

Searching for locations of wolf presence and impacts, of government officials involved in discussions, and of events related to the wolf such as protests, conferences, and legal action mentioned in the articles revealed that basically all of these locations coincided with regions officially recognized as zones of wolf presence. As expected, the Mercantour National Park, mentioned in a third of the articles, was the key location associated with the wolf (n=121, 33%). Overall, with a view exceptions outlined below, articles referenced 25 of Metropolitan France's 95 departments, all Departments in the South and East of France: Alpes de hautes Provence (04), Hautes Alpes (05), Alpes maritimes (06), Ardeche (07), Aube (10), Aveyron (12), Cantal (15), Drome (26), Lozère (48), Gard (30), Isere (38), Jura (39), Haute marne (52), Pyrenees Orientales (66), Haute Saone (70), Savoie (73), Haute savoie (74), Var (83), Vaucluse (84), Haut-Rhin (68), Bouche du Rhone (13), Doubs (25), Puy de Dome (63), Ariège (09) and the Vosges (88). Of these departments, 19 have registered Zones of Permanent Presence (ZPP), meaning the State has confirmed that wolves were sighted for at least two consecutive winters somewhere within those departments. The other departments are all recognized by the State as having at least punctual wolf presence. The most widely mentioned Departments were in the Provence-Alpes-Cote d'Azur region, especially departments bordering Italy.

Four departments that did not coincide with regions officially recognized as wolf presence regions were mentioned. The first is Paris (75), the seat of France's national government and headquarters of many organizations. The Finistere (29) in the North-West of France was also mentioned in one article, but involved an incident with a domestic wolf, unrelated to natural wolf return conflicts. Finally, an April Fool's article ironically mentioned the involvement deputies from two departments, Nord (59) and Landes (40), located on the west coast and north coast of France.

There were 98 unique village names across all 370 articles. Specific village names were primarily found in articles reporting on wolf killings, sheep killings and attacks, and wolf kill authorizations.

DISCUSSION

The natural return of the wolf to France in 1992 has generated a considerable amount of wolf focused national media interest for over more than two decades, with some time periods involving more press coverage than others, such as the years 2000 and 2004, years of new National Wolf Action Plans and important debates over wolf killing authorizations. Frames of the wolf's return in the national media were influenced by the political orientation of the newspaper, and different politicians, the ONCFS and other scientists, interest groups, and vocal stakeholders were represented in disparate ways (Gans 2004). Although the press presented a wide range of arguments portraying the wolf as primarily a perpetrator, the wolf population as overly abundant, and the population as having highly negative impacts, the conflicts that have historically been the main reason for wolf control, conflicts with human economies and livelihoods, were depicted as the most important cause, and often legit justification, for their persecution (Boitani 2000). The rationale behind wolf protection presented in the media primarily focused on the species' legally protected status and its existence value, only rarely and vaguely discussing the potential benefits of the wolf on ecosystems, biodiversity, or tourism. The media represented the issues surrounding the wolf as relating only to those in spatial proximity to wolves and confirmed that the Mercantour National Park is the iconic location of the French human-wildlife conflict (Molnar 2011).

Newsworthiness of wolves and article frames

Articles were identified in a broad range of newspaper sections, revealing how relevant and deeply complex issues surrounding wildlife and human relationships can be, permeating through different disciplines and communities (Mech 1995). Although the total number of articles may not seem impressive for three newspapers over a period of over 20 years, but it is important to recognize that wolf conflicts are highly localized, and national media interest is not compulsory for these as it would be for other topics. In addition, most of the articles very specifically focused on the wolf and wolf conflicts, often quite lengthy explorations of the topic.

Iyengar (1991) found that for some issues, viewing stories with episodic framing increased attributions of "individualistic responsibility," whereas viewing stories with thematic

framing increased attribution of “societal responsibility” (Siemer 2007), but this was not the case for articles covering wolf issues. For example, an article on the damages faced by a breeder who firmly maintained that he had taken every government mandated and recommended measure to protect his livestock shifted the blame to greater society level problems. However, a more thematic article that may have considered pastoralism and its relationship with the wolf within a broader framework, expressing concern over the validity of considering an industry that has not been around for long a “tradition,” and defending the interests of an industry that is maintained through subsidies and facing more challenges than simply the predator at the detriment of wolf protection, perhaps increasing attribution of more individual responsibility.

The locations mentioned by the media were differentially distributed, and lined up with the fact that like most other human-wildlife conflicts, the impacts of wolves are differentially distributed (Philo and Wilbert 2000). The media represents the issue of the wolf as one relating only to those in spatial proximity. In other words, the media discusses symposiums, protests, testimonials, local government officials, and court rulings, for example, all taking place in zones of presence, projecting the idea that wolf conflicts are an issue of local and regional interest and less of national interest. The interests of “French people” are sometimes broadly mentioned, but it must be noted that not a single protest or other event concerned with the wolf’s return taking place outside of department’s of wolf presence were covered in national media.

Although wolf attacks with large-scale damages were often addressed, many other factors such as government involvement, protests, scientific studies, or legal decisions, also played an important role in driving press coverage. Zimen (1978) wrote that it was the destructive nature of the predator that garnered the greatest media attention because “killing a hundred or more [sheep] and then not even eating them is too much.” However, following the wolf’s return to France, wolves were in the media for a multitude of reasons beyond the impressive nature of the damages it can cause. In 2000 and 2004, years of high issue coverage, National Action Plans were put into place and authorizations to kill wolves played an important in the media. Whenever this happened it was widely reported in the newspaper, and hostility both to wolves and to the movement to protect them became vociferous.”

Science in the press

The ONCFS is behind the vast majority of the scientific findings and studies surrounding the wolf presented in the news. Their efforts are focused on estimating the number of wolves present, evaluating the state of recovery of the species, knowing its distribution, and evaluating possibilities of intervention on the population (Molnar 2011). In other words, its scientific work consists of tracking the species, evaluating its reproduction, estimating its population growth, and mapping its presence, and this information, although usually not framed as science, represents most of the scientific information relayed to the public by the press. These scientific studies and findings are fundamental to the discussions surrounding the wolf's return, and the number of wolves present and their distribution are constantly mentioned in articles. However, the scientific studies and findings being reported do not help move the debate surrounding the wolf's return forward or answer questions about its behavior and its ecological role. Although not as rigorous as ecological studies in the US, programs that consider these issues have been put in place. For example, since 2004, the Predator-Prey scientific research program, has been bringing the ONCFS, the largest governmental research organization in France (CNRS), a departmental federation of hunters, and the Mercantour National Park together to study the role of the wolf population on four wild ungulate species. However, this program was only mentioned once (L_011) and none of its official outcomes entered the news.

Many studies have been conducted outside of France, demonstrating the important role a wolf population can have on ecosystems and wolf defendants vaguely mention these in the press. However, as multiple articles point out, these are not necessarily comparable to France's situation. For example, one journalist explains: "The Alps are not Yellowstone. The majority of the year, 75% of the wolf's diet can in fact consist of wild ungulates, but in the summer, when 700,000 sheep take over mountain pastures, (...), sheep actually represent between 20% and 50% of the diet of some wolf packs" (M_100).

The argument of biodiversity is frequently used in the press to represent very different opinions on the wolf. As one deputy explains, "everyone is talking about biodiversity, but everyone is using this concept in their own best interest" (M_022). For example, some argue that livestock and pastoralism are important in maintaining French ecosystems and landscapes and that without sheep grazing, hundreds of plants and animals would disappear. Others emphasize the role of the wolf in "regulating ecosystems," as they kill off the weak and sick prey (M_119).

Science has a role to play in helping develop biodiversity theories to line up with management goals, and the media needs to relay this information to help create an informed debate.

Endangered wolf vs. endangered breeder

Articles on the wolf's return in the media are in reality primarily articles about the impact of wolves on another endangered population, that of breeders and the pastoralism industry. Pastoralists and the damages they faced were the single most important actors and issue covered in the press. Wolves are associated with a wide range of conflicts, but nothing came close to being covered as much by media as depredation on livestock. For example, Boitani (2012) defined that in addition to being commonly associated with attacks on pastoralists, a second widespread conflict is that with hunters, who perceive and experience wolves as invasive competitors for shared prey species. However, although the interests of hunters were brought up in the media, the coverage surrounding this dimension of the human-wildlife conflict was simply not comparable. Articles often featured lengthy investigations and extensive quotes from breeders. Testimonials of loss framed as wolf-induced are frequent and vivid. For example, one breeder, addressing elected officials, was quoted: "Since the age of fourteen, I have pampered my animals, and now the wolves have destroyed them all. Parisian environmentalists are saying that we should not lay a finger on the predator. They need to come to see how botched my sheep are, and understand that they are responsible for all of this" (F_031). This quote touches on the narratives of urban-rural divide that are often touched on in the articles. Although discussing the processes involved in the creation of space, or urban, rural, and wild areas, it is important to recognize that it is the wolf's very transgression of "human spatial orderings" that spurs "deep unease" and conflict (Philo and Wilbert 2000, Peggs 2012).

The perspectives of the wolf on both extremes have toned down over time. For example, in 1997, an article investigated vocal rural communities interested in re-eradicating the wolf, and a local official was quoted saying: "They all want us to believe [the wolf] came naturally from Abruzzo, [Italy]. This is false: it was introduced in the park. In addition, these wolves degenerate. They do not kill to eat, they kill to kill" (F_037). Over time, ONCFS research has offered extensive evidence demonstrating that the wolf's presence in France is the result of natural re-colonization and these types of statements, speculating on the wolf's return are no

longer taken seriously in the news (Molnar 2011). In another article the same year, wolf defendants refused to acknowledge the real plight of breeders, arguing that breeders were fairly, if not overly, compensated for damages on livestock that the wolf may not always even cause; One park authority was quoted saying that she didn't understand the outcry regarding the wolf because "the eradication of the wolf will never get on the agenda as the wolf is a protect species" (M_014). These types of extreme views are rarely if ever found in the news today, as time and extensive conflict resolution management approaches helped ease tensions. Demands have shifted from population eradication to control, and are shifting for some from total protectionism to control, which is promising for long-term wolf management.

According to Mech (1995), the same "cultural attitudes that fostered wolf recovery also encouraged an extreme degree of wolf protectionism," which has not been constructive in dealing with very distinct stakeholder interests and helping actually protect the wolf. In the media, the pro-wolf campaign arguments emphasized are ones surrounding the philosophical, sociological, and ecological importance of the wolf. However, these arguments are not effective against the immediate, concrete, and dramatic losses of livelihoods depicted in the media. Wolf defendants need to ensure that the power of charismatic species or simply its legal protection status are not the only rationale given for wolf protection in the media, as this turns what should ultimately be concerns about biodiversity conservation into extreme animal protectionism, and removing ecology from the debate weakens arguments in favor of the wolf (Mech 1995).

Limitations

There are many limitations to my research, but the main one revolves the nature of content analysis. Although it was beyond the scope of this research to engage in a full discussion of the intricacies of discourse analysis and content analysis, I recognize the complexities and debates surrounding the content analysis approach I used. Some researchers have argued that content analysis and discourse analysis can be used together or in a "hybrid form," but others disagree (Herrera and Barumoeller 2004). According to Shoemaker and Reese (1996), "reducing large amounts of text to quantitative data (...) does not provide a complete picture of meaning and contextual codes, since texts may contain many other forms of emphasis besides sheer repetition." Newbold et al. (2002) expand on this idea: "The problem [with quantitative content

analysis] is the extent to which the quantitative indicators are interpreted as intensity of meaning, social impact and the like.” In other words, the relationship between media texts and their impact is complex. Although the primary aim of this research was to summarize the content of national media since the wolf’s return to address concerns over media coverage fairness, this is still a limitation of my study. Although the second reader helped address these concerns, texts are undeniably capable of having different meanings to different readers. In addition, although I was initially interested in content and discourse of wolf conflicts at the national level given the significant role of the government and what I thought represented a true national interest, it would have been interesting to consider and compare national media with local and regional news coverage, especially between zones of presence and non presence. Last but not least, although considerable time and effort was put into identifying all articles needed to address my research question, archives were not available started for all newspapers, archives were time consuming and expensive to access, and it is unclear whether search results always returned all desired articles. Realistically, the body of articles is a sample and not a census, and may therefore be representing a skewed characterization of media coverage.

Implications

Reading the national press made it evident that the human fascination with wolves is not only associated with fear, control and domination, but also connected with concern, affection and interest (Kean 2001). Surveying the contents of the articles also served as a reminder as to how prevalent the wolf is in French culture. For instance, authors used French expressions, sayings, and references to songs and folktales related to wolves to create clever headlines and to describe different concepts in articles, assuming that the readers would understand them (Examples in headlines L_068 and L_108). Finally, it also revealed the extremely divisive nature of the wolf’s return, showing differences among environmental organizations and divisions among party lines (M_014, M_093).

Overall, under the assumption that media contributes, constructs, and reflects different dimensions of the wolf’s return, this research, in providing an systematic overview of national wolf media coverage provides, addresses some of the concerns of stakeholders about media in an unbiased way, and can assist management agencies and actors with understanding the human-

dimensions of the wildlife conflict. Everyday communications about social issues among publics are at least partially shaped by mass media, and those communications can reciprocally influence the evolution of storylines in the media (Jensen 2003). In addition, media coverage contributes to public awareness of risks and victimization (Best, 1997). Understanding the frames applied to wolves and how those frames have evolved over the last two decades over different phases of the wolf's return may help wildlife professionals gain a greater understanding of wildlife-related risk perceptions and can have practical implications for how managers respond to media coverage (Gore et al. 2005).

Despite the tendency of media to frame wolves as perpetrators and the emphasis on abundant population size and negative impacts, it is important to reiterate that wolf recovery is accepted by a large majority of French people today (IFOP Sept 2013). However, research has shown that belief patterns are independent of immediate facts about wolves, as well as experiences with wolf conflicts, meaning the media should continue to be considered as a necessary piece in understanding the human-dimensions of the wildlife conflict (Bath 2000). For example, while most residents support wolves for future generations and viable populations of wolves in France, some opposition has been expressed toward "abundant" wolf population (Bath 2000). Since the wolf's return, the news has been using the millennial old expression "le loup est aux portes des villes," or wolves are at the doors of the city, in articles (F_015). Given the conservation success story of wolves and their increasing numbers, paired with the inability of intensive government and agency coordination and management to have resolved conflicts over the last two decades, we can predict that questions surrounding the human-dimensions of the wolf will only become more important.

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L_086	Nelly Olin dégainé contre le loup	Sylvie BRIET	6/21/2005
L_087	La ministre s'attaque au loup	Breve	6/20/2005
L_088	Le loup dans la ligne de mire du gouvernement	Breve	6/9/2005
L_090	Le loup serait-il aussi bon que le lion?	Breve	11/29/2004
L_091	Loups à abattre	Breve	11/9/2004
L_092	«Gaymard, les loups sont dans la rue!»	Alexandra SCHWARTZBROD	11/8/2004
L_093	Plan loup: première victime	Alexandra SCHWARTZBROD	10/22/2004
L_094	«Les bergers sont souvent perdants»	Lise BARNEOUD	10/18/2004
L_095	Espaces d'espèces	Jean-Dominique MERCHET	9/23/2004
L_096	Eleveurs et cheptels unis contre le loup	Breve	9/23/2004
L_097	Le conseil d'Etat cède à la peur du loup	Alexandra SCHWARTZBROD, Lise BARNEOUD	8/21/2004
L_098	Une espèce en voie d'extension	Lise BARNEOUD	8/21/2004
L_099	Ecologie. A savoir	Breve	8/21/2004
L_100	Les éleveurs d'ovins décidés à se faire justice	Breve	8/16/2004
L_101	La chasse aux loups reprend là où elle s'était arrêtée	Lise BARNEOUD	8/14/2004
L_102	Les loups des Alpes-Maritimes provisoirement sauvés	Lise BARNEOUD	8/9/2004
L_103	Des éleveurs ovins appellent à «tirer sur les loups»	Breve	7/29/2004
L_104	Eleveurs et moutons contre les loups	Breve	7/23/2004
L_105	«D'autres moyens contre les pertes d'ovins»	Sylvie BRIET	7/20/2004
L_106	La galère des bergers sans terre	Sonya FAURE	3/6/2004
L_107	«Il m'aurait fallu le double de bêtes»	Sonya FAURE	3/6/2004
L_108	La France dans la gueule du loup	Sylvie BRIET	2/12/2004
L_109	«Un intrus, symbole de la sauvagerie»	Marie-Joelle GROS	2/12/2004
L_110	Les gendarmes sur les traces des tueurs de loup.	Jacky DURAND	11/29/2000
L_111	Les bergers antiloup rentrent bredouilles.	Breve	11/23/1999
L_113	Le Larzac crie au loup	Breve	7/23/1996
L_114	Condamné à mort, le loup du Larzac court encore.	Gilbert LAVAL	7/8/1996
L_115	Des agriculteurs exaspérés par le loup des Vosges portent plainte «contre X»	Breve	1/5/1995
L_116	Le loup des Vosges exaspère les agriculteurs	Roger TRINCA	12/17/1994
L_117	Les locaux: «Ils risquent de devenir des sanctuaires»	Patrice ABEILLE, Camille CHEDAL-ANGLAY	8/26/2000
L_118	L'ombre du loup plane sur l'Ubaye	Lise BARNEOUD	9/13/2004
L_119	Les écolos refusent d'abattre les loups	Breve	8/2/2004
L_120	Début de la chasse aux quatre loups	Breve	8/2/2004
L_121	Le loup menacé de tirs préventifs	Breve	6/11/2004
M_001	A quelques dizaines de kilomètres de Nice Des loups dans le Mercantour	Cans ROGER	4/16/1993
M_002	La traque de " la bête des Vosges" Le loup est de retour	LE MONDE	8/24/1994

M_003	Prédateurs et protégés LES MYSTÈRES DE LA BÊTE DES VOSGES	Cans ROGER	11/20/1994
M_004	Les éleveurs des Alpes-Maritimes crient au loup	Cans ROGER	6/3/1995
M_005	Mercantour marche avec les loups	Dimitri FRIEDMAN	7/7/1995
M_006	Le contrôle judiciaire infligé à M. Pacary est allégé	Breve	8/10/1996
M_007	Sur la trace des loups	Jean-Louis ANDRE	11/3/1996
M_008	L'opposition au retour des ours et des loups se durcit	Stephane THEPOT	12/3/1996
M_009	Les bergers du Mercantour réclament des battues	Jean-Pierre LABORDE	12/3/1996
M_010	Corinne Lepage n'entend pas autoriser les tirs contre les loups	n/a	12/5/1996
M_011	ALPES-MARITIMES : Un refuge du parc naturel du Mercantour a été détruit par une explosion criminelle .	LE MONDE	5/24/1997
M_012	Une lettre de Corinne Lepage	Corinne LEPAGE	6/10/1997
M_013	Le loup et l'ours	Pierre GEORGES	9/30/1997
M_014	Le loup, l'agneau et les écolos	Jose-Alain FRALON	10/1/1997
M_015	Un homme n'est pas un ours	Leon MAZZELLA	10/7/1997
M_016	La phobie des loups gagne les Alpes du Nord	Philippe REVIL	10/25/1997
M_017	MERCANTOUR : Le conseil régional de Provence-Alpes-Côte d'Azur a adopté une motion exigeant « l'enlèvement immédiat de tous les loups des Alpes-Maritimes.	n/a	10/26/1997
M_018	MERCANTOUR : Dominique Voynet a réaffirmé sa volonté de trouver une solution concertée à propos des loups dans le massif du Mercantour	n/a	11/1/1997
M_019	Lieux d'été	Andre MEURY	7/4/1998
M_020	Le préfet de l'Isère ordonne l'abattage des chiens errants	Claude FRANCILLON	8/22/1998
M_021	Loup, y es-tu ?	n/a	9/15/1998
M_022	Le loup revient dans l'ensemble du massif alpin	Jose-Alain FRALON	9/15/1998
M_023	FRANÇOIS MOUTOU	Jose-Alain FRALON	9/15/1998
M_024	A Grenoble, le loup tueur de brebis piégé par l'ADN	Nicole CABRET	10/16/1998
M_025	Le Mercantour à pas de loup	Patrick FRANCES	7/1/1999
M_026	Dans la vallée de la Bréda (Isère), le casse-tête de la protection des troupeaux REPORTAGE	Claude FRANCILLON	8/14/1999
M_027	Un retour par étapes	n/a	8/28/1999
M_028	Un loup repéré dans les Pyrénées	n/a	8/28/1999
M_029	Histoire de loup	Gerard CHEVALIER	9/8/1999
M_030	La protection des grands prédateurs en France est remise en question	Gaelle DUPONT	4/4/2000
M_031	Des Alpes aux Pyrénées	n/a	7/22/2000
M_032	Le gouvernement ouvre la voie à des prélèvements sur les populations de loups	Mael THIERRY	8/10/2000
M_033	Dans les Alpes-Maritimes, une battue préfectorale tourne à la guerre du loup	Benoit HOPQUIN	12/10/2000
M_034	Près de la vallée de l'Enfer, les loups attirent les touristes	Beatrice JEROME	8/8/2001
M_035	LOUPS : un berger affirme avoir été mordu par une louve	n/a	8/17/2001
M_036	Des journalistes fascinés par la fiction	Josyane SAVIGNEAU	6/28/2002
M_037	ACCIDENT : 400 moutons ont péri après une chute dans un ravin du parc national du Mercantour	n/a	7/23/2002
M_038	Dans le Mercantour, l'ombre du loup et la colère des bergers	Benoit HOPQUIN	8/2/2002
M_039	LOUP : les députés ont voté la création d'une commission d'enquête sur la « présence du loup en France »	n/a	11/7/2002
M_040	Les députés préconisent une « régulation » de la présence du loup en France	Benoît Hopquin	5/16/2003
M_041	Pour les éleveurs, tous syndicats confondus, la cohabitation avec le prédateur est impossible	n/a	11/22/2003
M_042	A bon loup, bon chien	Eric FOTTORINO	7/23/2004
M_043	La justice suspend un arrêté autorisant l'abattage de loups	Gaëlle DUPONT	8/10/2004
M_044	Les éleveurs des Alpes du Sud ne supportent plus les attaques du loup	Régis GUYOTAT	9/1/2004
M_045	Comment le loup italien Ligabue, nom de code M-15, est passé en France	Jean-Jacques BOZONNET	11/18/2004

M_046	En Espagne, l'ours est protégé mais le loup est toujours chassé	Stéphane THÉPOT	1/6/2005
M_047	Dans les Alpes du Sud, la difficile coexistence entre éleveurs et loups	Gaëlle DUPONT	7/22/2008
M_048	Dans le Mercantour, les loups gagnent du terrain	Plantu	7/22/2008
M_049	Randonnées dans un refuge de la biodiversité	Benoit HELME	3/1/2010
M_050	Boucs émissaires	Jean-Claude COURBIS	8/20/2010
M_051	Mercantour : Les saintes écritures de la Vallée des Merveilles	Patrick BARD, Marie-Barthe FERRER	1/13/2011
M_052	Dans les Vosges, l'ombre du loup	Monique RAUX	6/26/2011
M_053	Le Mercantour crie au loup	n/a	9/1/2012
M_054	Dans le Mercantour, le loup défie les éleveurs	Sophie LANDRIN	9/2/2012
M_055	Les coûts de la prévention et des indemnités	n/a	9/2/2012
M_056	Les parcs nationaux français en crise d'identité	Sophie LANDRIN	11/15/2012
M_057	Peut-on capturer des loups pour les empêcher d'attaquer le bétail ?	Audrey GARRIC	2/9/2013
M_058	La France double le nombre de loups qui pourront être abattus	n/a	5/17/2013
M_059	Les indemnités transactionnelles exonérées d'impôt sur le revenu	Patrick ROGER	9/24/2013
M_060	Alpes-Maritimes : les loups ne pourront plus être tués lors de battues au gibier	n/a	10/4/2013
M_061	TRAVERSESE Arsène le loup	Pierre GEORGES	8/30/1994
M_062	Heures Locales Prédateurs et Protégés	Roger CANS	11/20/1994
M_063	Les méfaits du « loup des Vosges » commis « à l'instigation d'une personne humaine », selon des agriculteurs	n/a	1/5/1995
M_064	Réapprendre à vivre avec la faune sauvage	Sylvia ZAPPI	12/3/1996
M_065	Les ours immigrés au secours des ours indigènes	Stéphane THÉPOT	7/31/1997
M_067	RHÔNE-ALPES : la Fédération des alpages de l'Isère s'inquiète de la multiplication d'attaques de troupeaux de brebis	n/a	8/6/1998
M_068	SAVOIE : les éleveurs ovins savoyards, inquiets du retour du loup ou du lynx, vont bénéficier d'un programme d'aide	n/a	9/1/1998
M_069	HAUTES-ALPES : 150 à 200 éleveurs ont manifesté dans les rues de Gap	n/a	9/8/1998
M_070	Les chiens patous à la rescousse	n/a	9/15/1998
M_071	Mission interministérielle sur le loup	n/a	10/17/1998
M_072	23.35 France 3 Nimbus	Alain LOMPECH	12/1/1998
M_073	Le Cercle des Loups	Jean SOUBLIN	2/5/1999
M_074	Comment réconcilier les loups et les bergers ?	Sylvia ZAPPI	3/20/1999
M_075	Après le loup dans les Alpes, l'ours exaspère les éleveurs des Pyrénées	Stéphane THÉPOT	8/14/1999
M_076	Gare aux ours et aux loups !	n/a	8/14/1999
M_077	Les chambres d'agriculture en appellent aux élus	n/a	8/14/1999
M_078	RHÔNE-ALPES : environ 400 éleveurs de brebis ont défilé à Grenoble pour dénoncer le « carnage » du loup sur les troupeaux des alpages.	n/a	9/7/1999
M_079	Un rapport parlementaire préconise l'exclusion des loups des zones d'élevage	Ali HABIB	10/21/1999
M_080	Les colères tenaces des gens des montagnes	Luc ROSENZWEIG	11/17/1999
M_081	Les défenseurs des loups protestent contre les battues	n/a	11/25/1999
M_082	Les députés votent le bannissement des ours réintroduits dans les Pyrénées	n/a	4/4/2000
M_083	« Le loup n'est pas un animal extra »	Benoit HOQUIN	3/30/2000
M_084	Environnement : encore un effort	n/a	4/7/2000
M_085	La Confédération paysanne se méfie du loup	Benoit HOPQUIN	5/12/2000
M_087	Les bergers savoyards en sont à dresser des filets électrifiés	Philippe REVIL	7/22/2000
M_089	Le Queyras a choisi le tourisme sans les promoteurs	Michel SAMSON	8/11/2001
M_090	Ne pas parler du loup, mais y penser toujours	Michel SAMSON	8/11/2001
M_091	L'ours, le loup et l'ethnologie	Catherine VINCENT	9/29/2002
M_092	Le ministère de l'écologie autorise l'abattage de quatre loups	n/a	7/19/2004

M_093	Le plan d'action sur le loup suscite des réactions modérées	n/a	7/19/2004
M_094	La philosophie dans le troupeau	Guillaume LEBAUDY, Marc MALLÉN, Audrey PÉGAZ-FIORNET, Lionel ROUX	8/1/2004
M_095	La justice française accorde un sursis aux loups des Alpes	n/a	8/11/2004
M_096	Le loup des uns n'est pas celui des autres	Gaëlle DUPONT	8/20/2004
M_097	Arrêté ministériel anti-loups : les écologistes déboutés	n/a	8/20/2004
M_098	Le Conseil d'Etat valide l'arrêté ministériel autorisant l'abattage du loup	Ali HABIB	8/22/2004
M_099	Hervé Gaymard s'oppose à Serge Lepeltier sur le loup	n/a	9/11/2004
M_100	Le loup, révélateur de la crise du pastoralisme	Catherine VINCENT	9/14/2004
M_101	Les loups des Alpes du Sud plus malins que les chasseurs	Béatrice JEROME	10/22/2004
M_102	Plan loup : une femelle a été abattue dans la Drôme	Béatrice JEROME	10/23/2004
M_103	Trois questions à Farid Benhamou	Stéphane THÉPOT	11/6/2004
M_104	Cause animale : l'émotion, et après ?	Stéphane THÉPOT	11/30/2004
M_105	La traque du loup devrait s'intensifier dans les Alpes	Béatrice JEROME, Nicole CABRET	6/4/2005
M_106	En Italie, la cohabitation avec ce « patrimoine national » se passe bien	Jean-Jacques BOZONNET	6/4/2005
M_107	Les bergers des Alpes sont autorisés à tirer des loups	n/a	6/22/2005
M_108	Protestations après l'abattage d'un loup en Savoie	n/a	7/6/2005
M_110	L'ours, l'agneau, le loup et l'homme	Alain LOMPECH	4/13/2006
M_111	Le retour du loup affecte les paysages alpins	Nathalie GRYSZPAN	7/22/2007
M_112	Nathalie Kosciusko-Morizet : "Le système d'évaluation des OGM n'est pas satisfaisant"	Constance BAUDRY	4/24/2008
M_113	En Savoie, les patous, chiens de berger, croquent du randonneur	n/a	8/9/2008
M_114	Le préfet des Hautes-Alpes autorise l'abattage d'un loup	n/a	7/13/2010
M_115	Sergio Paulinho remporte la 10e étape	n/a	7/16/2010
M_116	Nicolas Sarkozy à la reconquête de l'électorat agricole	n/a	8/27/2010
M_118	Les attaques de loups se multiplient en France	C.V.	7/27/2011
M_119	Faut-il abattre les loups pour protéger les troupeaux ?	Audrey GARRIC	7/28/2011
M_120	Quand José Bové crie haro sur le loup	Pierre JOUVENTIN	8/3/2012
M_121	Faut-il choisir entre le loup et l'agneau ?	Hervé KEMPF	8/3/2012
M_122	Pourquoi le Var va abattre un loup	Audrey GARRIC	8/22/2012
M_123	Une expertise scientifique demandée par Delphine Batho	S. La	9/2/2012
M_124	Ces parlementaires qui crient au loup	Audrey GARRIC	10/26/2012
M_125	Garder le loup sans perdre l'agneau	n/a	11/4/2012
M_126	La politique de protection du loup dans l'impasse	n/a	11/4/2012
M_127	Le Sénat adopte un projet de loi sur l'information du public	n/a	11/8/2012
M_128	Le Sénat vote une loi créant des zones d'exclusion du loup	Catherine VINCENT	1/31/2013
M_129	Un plan loup à géométrie variable	Audrey GARRIC	2/5/2013
M_130	Les loups dans le viseur du gouvernement	Audrey GARRIC	2/7/2013
M_131	La guerre du loup se déplace sur le terrain juridique	Audrey GARRIC	10/16/2013
M_132	Le loup étend son territoire et sème la colère dans les plaines	Audrey GARRIC	10/25/2013
M_133	Nature en péril	Editorial	2/28/2010

APPENDIX B: Differences between Content and Discourse Analysis (Hardy et al. 2004)

	Discourse Analysis	Content Analysis
<i>Ontology</i>	Constructionist – assumes that reality is socially constructed	Realist – assumes that an independent reality exists
<i>Epistemology</i>	Meaning is fluid and constructs reality in ways that can be posited through the use of interpretive methods	Meaning is fixed and reflects reality in ways that can be ascertained through the use of scientific methods
<i>Data source</i>	Textual meaning, usually in relation to other texts, as well as practices of production, dissemination, and consumption	Textual content in comparison to other texts, for example over time
<i>Method</i>	Qualitative	Quantitative
<i>Categories</i>	Exploration of how participants actively construct categories	Analytical categories taken for granted and data allocated to them
<i>Inductive/ Deductive</i>	Inductive	Deductive
<i>Subjectivity/ Objectivity</i>	Subjective	Objective
<i>Role of context</i>	Can only understand texts in discursive context	Does not necessarily link text to context
<i>Reliability</i>	Formal measures of reliability are not a factor although coding is still justified according to academic norms; differences in interpretation are not a problem and may, in fact, be a source of data	Formal measures of intercoder reliability are crucial for measurement purposes; differences in interpretation are problematic and risk nullifying any results
<i>Validity</i>	Validity in the form of “performativity” i.e., demonstrating a plausible case that patterns in the meaning of texts are constitutive of reality in some way.	Validity is in the form of accuracy and precision, i.e., demonstrating that patterns in the content of texts are accurately measured and reflect reality
<i>Reflexivity</i>	Necessarily high – author is part of the process whereby meaning is constructed	Not necessarily high – author simply reports on objective findings

APPENDIX C: Official organizations in the 2013-2017 National Wolf Group

Association nationale des élus de Montagne (ANEM)

Ministère de l'Écologie, du Développement durable et de l'Énergie :

Ministère de l'Agriculture, de l'Agroalimentaire et de la Forêt

Services déconcentrés des deux ministères (DREAL, DRAAF, DDT, DDTM)

Associations de protection de la nature: France Nature Environnement (FNE), Association FERUS, World Wildlife Fund (WWF) France

Parc national de France (PNF)

Fédération des Parcs Naturels Régionaux

Fédération Nationale Ovine

Assemblée Permanente des Chambres d'agricultures (APCA)

Fédération Nationale des Syndicats d'Exploitants Agricoles (FNSEA)

Jeunes Agriculteurs (JA)

Confédération paysanne

Coordination rurale

Fédération nationale des Chasseurs (FNC)

Association nationale des Chasseurs de Montagne (ANCM)

Association des Lieutenants de Louveterie Française (ALLF)

Éleveurs et Montagnes (EM)

Conseil national de la Protection de la Nature (CNPN)

Centre d'Études et de Réalisations pastorales Alpes Méditerranée (CERPAM)

Office national de la Chasse et de la Faune Sauvage (ONCFS)

APPENDIX D: ONCFS Wolf Return Infographics

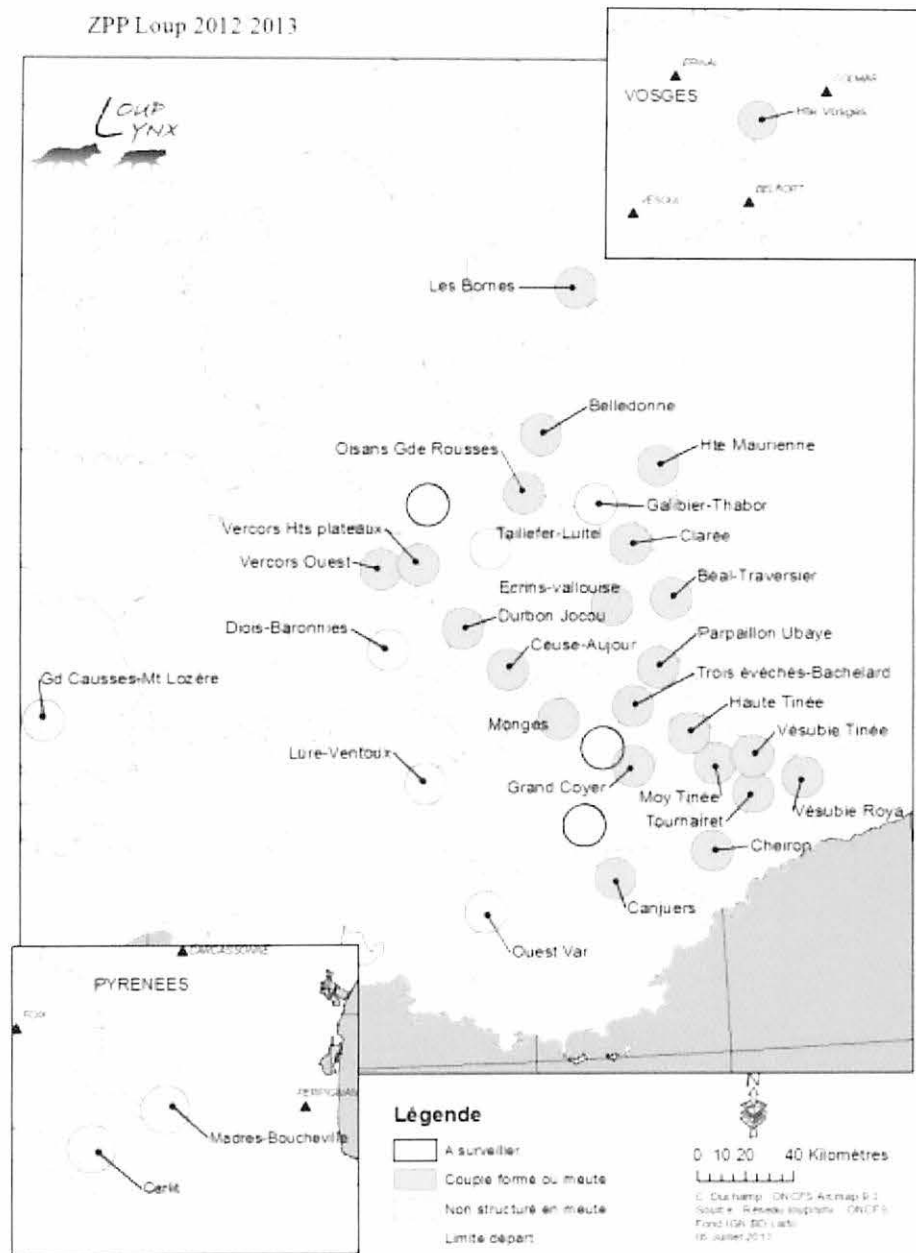


Figure 1. Map of the 31 zones of permanent presence (ZPP) officially recognized by the ONCFS as of winter 2012/2013. (ONCFS, Bulletin loup du réseau #29, July 2013)

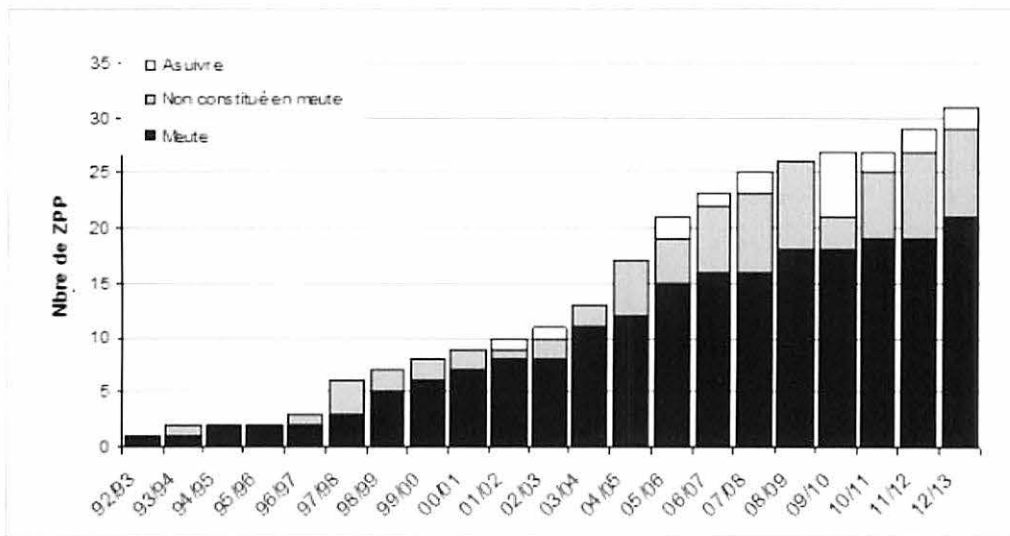


Figure 2. Number of ZPPs in France over time. The black bars represent ZPPs with established wolf packs, gray with non established wolf packs, and white needing follow up. (ONCFS, Bulletin loup du réseau #29, July 2013)

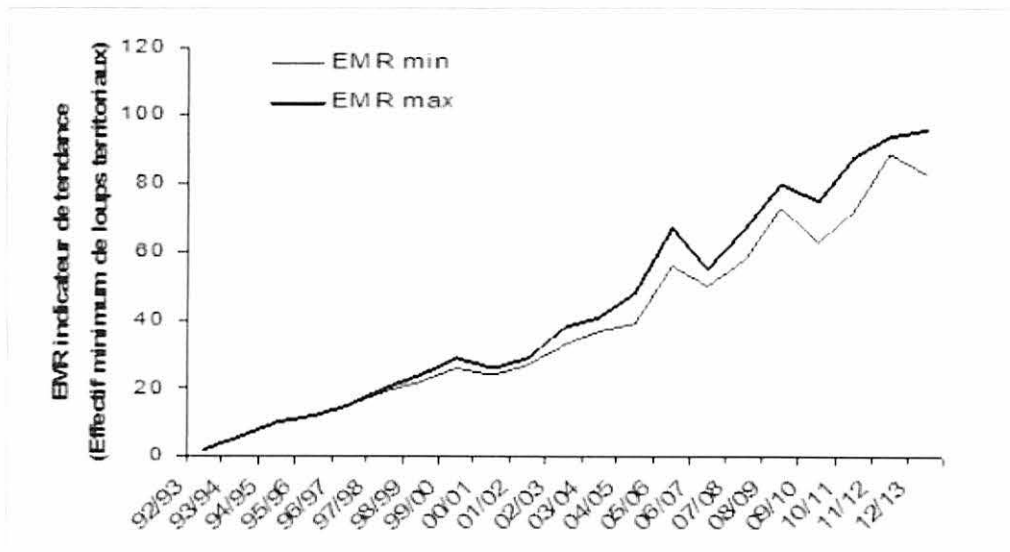


Figure 3. Change over time of the EMR indicator, representing the number of wolves established in the official zones of permanent presence (ZPPs) every winter. EMR values indicate population demographic trends, and are used by the ONCFS to convert to the CMR, an estimate the total population, currently around 250 in France. (ONCFS, Bulletin loup du réseau #29, July 2013)