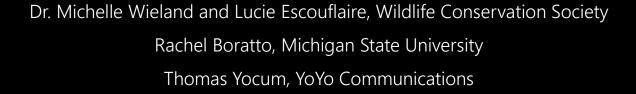
# Reducing Threats to Wildlife from Urban Bushmeat Demand



R Boratto @WCS











# Why cities?

- Capital cities
- Protected areas

#### Origin of bushmeat

- To Brazzaville
- To Kinshasa

#### Flows of bushmeat

- To Brazzaville
- To Kinshasa

Data used: 2014-2015 PREVENT study, « Markets as high-risk locations for transmission of infectious disease in Republic of Congo and Democratic Republic of Congo »



# Why now?

#### PHILOSOPHICAL TRANSACTIONS — OF —

THE ROYAL SOCIETY

#### rstb.royalsocietypublishing.org

#### Review





Cite this artide: Abemethy KA, Coad L, Taylor G, Lee ME, Maisels F. 2013 Extent and ecological consequences of hunting in Central African rainforests in the twenty-first century. Phil Trans R Soc B 368: 20120303. http://dx.doi.org/10.1098/stb.2012.0303

One contribution of 18 to a Theme Issue 'Change in African rainforests: past, present and future'.

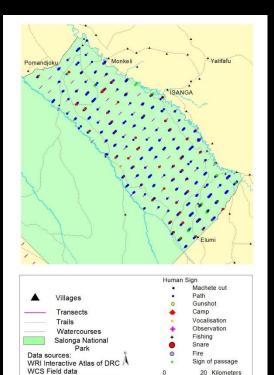
Subject Areas:

# Extent and ecological consequences of hunting in Central African rainforests in the twenty-first century

K. A. Abernethy<sup>1</sup>, L. Coad<sup>2,3</sup>, G. Taylor<sup>3</sup>, M. E. Lee<sup>4</sup> and F. Maisels<sup>1,5</sup>

Humans have hunted wildlife in Central Africa for millennia. Today, however, many species are being rapidly extirpated and sanctuaries for wildlife are dwindling. Almost all Central Africa's forests are now accessible to hunters. Drastic declines of large mammals have been caused in the past 20 years by the commercial trade for meat or ivory. We review a growing body of empirical data which shows that trophic webs are significantly disrupted in the region, with knock-on effects for other ecological functions, including seed dispersal and forest regeneration. Plausible scenarios for land-use change indicate that increasing extraction pressure on Central African forests is likely to usher in new worker populations and to intensify the hunting impacts and trophic cascade disruption already in progress, unless serious efforts are made for hunting regulation. The profound ecological changes initiated by hunting will not mitigate and may even exacerbate the predicted effects of climate change for the region. We hypothesize that, in the near future, the trophic changes brought about by hunting will have a larger and more rapid impact on Central African rainforest structure and function than the direct impacts of climate change on





Map by F. Maisels, June 2016



<sup>&</sup>lt;sup>1</sup>African Forest Ecology Group, School of Natural Sciences, University of Stirling, Stirling, UK

<sup>&</sup>lt;sup>2</sup>School of Geography and Environmental Planning, University of Queensland, St Lucia Campus, Brisbane, Australia <sup>3</sup>Environmental Change Institute, School of Geography, University of Oxford, Oxford, UK

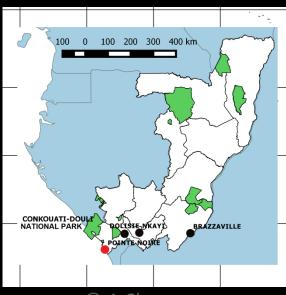
<sup>&</sup>lt;sup>4</sup>Wildlife Conservation Research Unit (WildCRU), University of Oxford, Oxford, UK

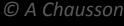
Wildlife Conservation Society, Bronx, NY, USA

### Overview

- 2-year, \$200,000 USFWS-funded pilot project in Pointe Noire
- Identifying and understanding key drivers behind consumption
- Supporting conservation efforts :
  - Raising awareness
  - Building constituencies
- Implementing first-of-its-kind mass media behavior change campaign









# Why Pointe Noire?



- 1,000,000 inhabitants
- 100 miles north of the Congo River, 60 miles south from Conkouati
- Relatively isolated, good communications petridish



### Who's involved?

### Coalition of organizations

**Steering Committee** 

**Government Partners** 

**Future Coalition Members** 

**Natural Resource** Governance

Criminology

Advisory **Board** 

Communications and Media Bushmeat

**Behavior Change** 

**Economics** 

**Nutrition and Gastronomy** 



### Framework and Research

- Conceptual framework three inter-related, dynamic components of bushmeat
- Two phase approach: research and campaign
- Mixed-methods research (quantitative, qualitative, desk research)





### Core Research Questions

What species are most popular and why?

**How** does bushmeat get to Pointe Noire?

Where can bushmeat be found in Pointe Noire?

**Who** are influential people and institutions in Pointe Noire?

**How** is the supply of bushmeat organized?

**Who** is supplying, selling and eating bushmeat?

When and how often are people are trading, selling and eating bushmeat?

Has anything changed in supply and people's bushmeat consumption?

Why do consumers choose bushmeat over other sources of proteins?

Where do people buy/prepare/eat bushmeat?

What will make people reduce/ stop eating bushmeat?

**How much** does bushmeat costs compared to other types of meat that sold/eaten?



### Key research areas



Market and restaurant mapping

Market and hub monitoring

Restaurant and vendor

#### Demand

Consumer profile

Consumer qualitative

Consumer quantitative

#### Regulatory Environment

Political mapping

Law enforcement

Law & policy

#### Campaign

Audience research

Media mapping

Pre testing



### Approach

- C4C Communications for Conservation
- Mapping conservation risks and opportunities
- Strategically engaging stakeholders
- Theory of change to support campaign





# Campaign Building and Launching

- Audience research: Where do people get their info? How? Why?
- Determine target audience, appropriate media
- Develop campaign brief for producers
- Conduct pre-testing
- Launch campaign
- Conduct effective monitoring and evaluation (M&E)



# What are the findings so far?

- Seen as a luxury good, social status symbol
- Urbanites know little about the environment
- Wide variety of animals in the markets
- Lax regulatory environment
- Meat coming from Conkouati



**OWCS** 



### Unexpected findings

- Widely consumed
- Preferred to other types of proteins, natural
- Recommended by the health community
- Political connotation
- Storage in cold rooms
- Other points of origins than Conkouati
- Markets: 100 tables





# What do the findings mean?

Provide insight about key drivers



 More research to understand the unexpected





### Criminology and Bushmeat

### **Conservation Criminology**

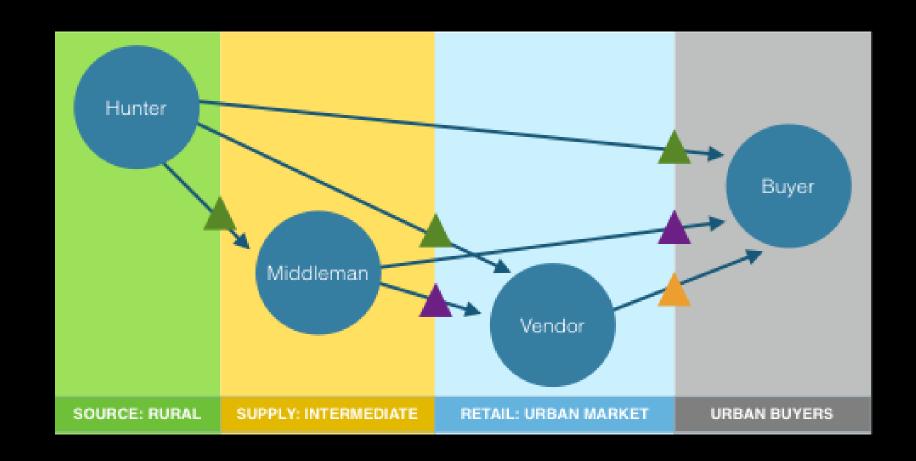
- Interdisciplinary framework
- Scientific study of environmental crimes and noncompliance
- Crime, not criminals



(Gibbs, Gore, McGarrell & Rivers 2010)



### Bushmeat Supply Chain





### What we have learned...

- Organized structures
- Different trade mechanisms
- Different modes of transportation
- Strategies to avoid detection
- Special orders common





# Next Steps with Criminology

- Network Analysis
- Geographic Relationships
- Offender Motivation
- Enforcement Strategies
- Situational Crime
   Prevention: 25 Techniques

(see: Lemieux 2014; Cornish & Clarke 2003)





### Moving from learning to action

- Finalizing research
- Leveraging results from other sites and research
- Engaging stakeholders, building constituencies
- Designing and implementing behavior change campaign



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# The Ki/Bra project

- Lessons learned from Pointe Noire
- Going bigger
- Transnational project
- Deeper research needed
- New partners...





Airport baggage
L Escouflaire@WCS



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