

# WILD MEAT & WILD LIFE IN THE TRADE Hub



**U**nsustainable global trade of animals is one of the critical drivers of biodiversity decline. Within the TRADE Hub we aim to contribute to improving the sustainability of trade in live animals as well as wild meat. Our focal countries are China, Indonesia, Tanzania, and focal region Central Africa (Cameroon, Gabon, Republic of Congo, DRC).

**F**or wildlife trade, our work will contribute to understanding the volumes and characteristics of local and export trade and the impacts of this trade on biodiversity. For wild meat, which is meat obtained through hunting non-domesticated animals in a natural habitat, we will evaluate the success of various tools in changing the amount of wild meat eaten in towns and cities.

**W**e aim to improve the sustainability of wild meat as a resource for communities in the Congo Basin and Tanzania by researching the impacts of the wild meat trade on people and the environment, and trying to understand consumer choices and needs to develop more sustainable alternatives, to protect biodiversity and people's livelihoods.

Using this diagram which is based on a generic supply chain, we can explore the work that the TRADE Hub is doing at each stage of the wild meat & wildlife supply chain



**Acronyms**  
 BNU = Beijing Normal University  
 CIFOR = Center for International Forestry Research  
 ERAIF = École régionale post-universitaire d'aménagement et de gestion intégrés des forêts tropicales  
 IRET = Research Institute for Tropical Ecology  
 OUT = The Open University of Tanzania  
 UoO = University of Oxford  
 UoS = University of Stirling  
 WCS = Wildlife Conservation Society



# WILD MEAT

Gabon

IRET-UoS

- Carrying out wild meat stakeholder surveys of attitudes and practices of actors across the sector
- Conducting surveys of household socio-economic situations, and their non-timber forest products (NTFPs) and food consumption across a range of hunting and market access scenarios
- Carrying out surveys of wildlife communities in Gabon's un-hunted areas and across a gradient of hunting pressure

Tanzania

- Characterising hunting and wild meat consumption in Udzungwa and Ugalla in Tanzania using specialised questioning techniques (e.g., unmatched count technique - UCT) (*OUT, UoO*)
- Estimating densities of key wild meat species at different levels of hunting intensity using ecological monitoring methods

Indonesia

- Characterising sustainability of hunting (*WCS, UoO*)

## CONSUMERS

- Researching consumer segmentation using the results from a city-wide survey and focus group discussions to identify three priority segments to target with a demand reduction campaign in Kinshasa, DRC
- Conceiving, producing, pre-testing and launching a demand-reduction campaign targeting three priority consumer segments
- Conducting a campaign impact evaluation using interactive voice response phone calls targeting the three priority segments in Kinshasa, DRC
- Researching consumer perception and willingness to pay for game meat in Tanzania (*SUA*)
- Conducting a discourse analysis of COVID-19 and wild meat to understand how the pandemic is changing consumer perceptions, consumption and support for policy interventions in Central Africa, China, and the UK (*UoO*)
  - » Using articles found through national media, Google, GDELT, Weibo and Twitter and a mobile phone survey in DRC & Cameroon
- Carrying out consumer household surveys in Gabon to look at socio-economic drivers of consumption volume and frequency (*UoS*)

# WILDLIFE

## HUNTERS/ COLLECTORS

*We are filling gaps in knowledge about current hunting/collecting practices and impacts on ecosystems and people.*

- Early monitoring of online trade in live birds in China using Python to mine data on online bird trade (*BNU*)
- Investigating physical bird markets in China (*BNU*)
- Carrying out field surveys with hunters as part of research to develop a [CITES Non-detriment Finding](#) (NDF) for the Tokay gecko, including social, economic and biological considerations (*WCS, Tambora, UoO*)
- Developing a "best practice" approach to NDF development for other CITES parties to follow



*We are studying drivers of consumer behaviour, and mechanisms of influence.*

- Identifying supply chain actors and conducting value chain analysis of wild species (songbirds and gecko) traders based on big-data analysis in Indonesia (*CIFOR Indonesia*)
- Early planning for consumer on-line survey to understand consumers' attitude to live bird trade and wildlife consumption (*BNU*)



## BREEDERS

- Planning for survey of captive parrot breeding farms to understand the scale and species involved in captive breeding farms through questionnaires and face-to-face interviews (*BNU*)



# WILD MEAT

## METRICS AND TOOLS

*We are developing powerful models that envision future pathways for trade, as well as metrics and indicators that help plan and monitor for more sustainable trade systems.*

- Developing interactive voice response protocols for impact evaluation
- Developing new AI data management tools for analysis of wildlife community data from camera trap surveys, to enable wildlife impacts to be measured locally and off-takes (potentially) adapted
- Developing new methods for mobile phone discourse analysis, in collaboration with Oxford Internet Institute (UoO)
- Improved methods for CITES trade evaluations (UoO, UNEP-WCMC, WCS Indonesia)



## CAPACITY BUILDING

- Involving junior researchers in weekly team meetings, to discuss research design and analyses, with teams across DRC/ROC/Gabon and UK (UoO, UoS, UNEP-WCMC).
- Training research assistants and PhD students (e.g., on using NVivo)
- Planning training meetings for Central Africa/Tanzania researchers in stakeholder analysis, impact analysis - postponed due to COVID-19
- Building capacity for wildmeat research in DRC (ERAIFT, UoO)
- Enrolling researchers from Central Africa on [AfOx TRADE Fellowships](#) at Oxford (12 in total)
- WCS Indonesia team members visiting Oxford in 2021 as Biodiversity Fellows in 2021 to work together on the Tokay gecko NDF

### WCS, ERAIFT, UoS

- Developing guidelines for engaging governments over the longer-term on reducing the zoonotic disease risk posed by urban markets
- Conducting stakeholder mapping of government, civil society and private sector partners for demand-reduction campaigns in Kinshasa and Brazzaville
- Engaging with government over wildmeat policy in Gabon

# WILDLIFE

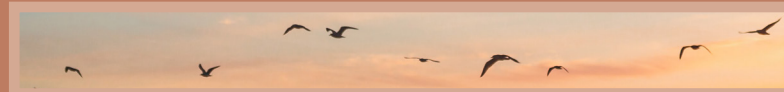


UNEP-WCMC

- Developing an interactive online tool for exploring and visualising different aspects of the CITES trade data to help increase the accessibility of the CITES Trade Database
- Developing a tool to support countries to assess the sustainability of their international trade in individual species by collating information from multiple sources including the CITES Trade Database, Species+, IUCN Red List and other biological databases
- Exploring the impact of national socio-economic pathways on CITES-listed wildlife trade, using a suite of future scenario projections to assess how varying national policy pathways will affect trade levels

*We are working consistently towards improving capacity and skills for all TRADE Hub members, with an emphasis on interdisciplinary learning and knowledge exchange.*

- Seeking assistance in editing and proofreading manuscripts (BNU)
- Developing collaborative approaches to identify appropriate tools to model social and natural impact of live bird trade (BNU)
- Training on camera trapping for Tanzania's researchers (SUA)



## NATIONAL GOVERNMENT

*We are engaging public sector decision-makers with the Hub's findings, enabling pathways to critical shifts in planning and implementation.*

### BNU

- On-going talks and discussions with China's CITES MA on research topics that assist research and surveys on captive parrot breeding farms
- Conducting a review and analysis of national policies on wildlife trade management



# WILD MEAT

# WILDLIFE

## TRADERS/ TRAFFICKERS/ AGGREGATORS



*We are dissecting the role that importers play, and researching how demand-side management can change the way commodities are traded.*

Central Africa

- Carrying out surveys of Bushmeat sales on Facebook in Central Africa
  - » Will help to engage government on understanding and regulating online trade
- Understanding the experiences of female bushmeat sellers in Kinshasa – power relations, vulnerability and profit (UoO, WCS, ERAIFT)
  - » Will help to ensure gender equality in regulation measures



## MARKETS

Central Africa

- Reducing the risk of future emerging infectious disease outbreaks by changing social norms around urban bushmeat consumption and stopping its commercial trade ([WCS position paper](#))
  - » Conducting socio-economic analyses of COVID-19, systemic crisis, and possible implications for the wild meat trade in Sub-Saharan Africa. (Articles: [economic analysis](#), [socioeconomic analysis](#), [SDGs](#)). This could help to engage with governments and private sector on how to mitigate COVID-19 impacts in the sector
- Conducting a discourse analysis looking at the impact of media portrayal of links between COVID 19 and wildlife on consumer confidence and market dynamics - using mobile phone surveys in DRC and Cameroon, and in-person surveys in Cameroon (UoO - IIED Darwin project)



- Researching trade in wildlife between Tanzania and importing countries (SUA)
- Identifying the distribution of wild species (songbirds and gecko) traders based on big-data analysis on the online marketplace in Indonesia (CIFOR Indonesia)
- Identifying supply chain actors and conducting value chain analysis of wild species (songbirds and gecko) trader based on big-data analysis in Indonesia (CIFOR Indonesia)



### Check out our latest research on wild meat & wildlife

- [“Investigating the risks of removing wild meat from global food systems”](#) (Booth et al., 2021)
- [“Saving Lives, Protecting Livelihoods, and Safeguarding Nature”: Risk-Based Wildlife Trade Policy for Sustainable Development Outcomes Post-COVID-19”](#) (Booth et al., 2021)
- [“Beyond banning wildlife trade: COVID-19, conservation and development”](#) (Roe et al., 2020)







# WILDLIFE

## PRIVATE SECTOR



- Looking at changes in private captive breeding farmers' attitude to captive breeding through questionnaires and face-to-face interviews - most captive parrot breeding farms are private in China (BNU)

## TRADE RULES

- Analysing the illegal pangolin trade in Indonesia using big data analysis methods (CIFOR Indonesia)

## MEAs



**We will feed into processes of Multilateral Environmental Agreements, providing the most up-to-date insights for decisions on trade and environment.**

- Collaborating with the Indonesian Institute of Sciences (LIPI) to develop a non-detriment finding (NDF) for *Tokay gecko* (*Gekko gekko*) to underpin future CITES export quotas (WCS Indonesia, Tambora, UNEP-WCMC, UoO)
  - » This includes stakeholder workshops, methodology development, and a rapid assessment of populations on Java
  - » Outputs include a NDF to underpin export quotas and a research paper
- Estimating the number of species threatened by international trade on the IUCN Red List and the proportion of these species included, and not, in CITES (UoO, UNEP-WCMC)
  - » The results should be of interest to the Parties in thinking about potential listing proposals to amend the Appendices at future CoPs
- Producing infographics of international trade in CITES-listed animals, including levels of wild-sourced trade, main taxa and main trading partners for each of the eight TRADE Hub partner countries (UNEP-WCMC)
- Drafting a paper on the mischaracterisation of wildlife trade, which frequently occurs when researchers analyse wildlife trade datasets, and which could misdirect conservation policies and funding (UoO, UNEP-WCMC)
  - » The paper presents recommendations for researchers, database managers, journal editors, and policymakers to avoid these issues
- Writing a gap analysis paper assessing primary literature that describe or analyse CITES trade data, and highlighting underrepresented taxonomic groups and geographical areas (UNEP-WCMC)

