



## Caribbeetek - A public skeleton collection documenting the wild F.W.I. fauna.

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### ► To cite this version:

Guimaraes Susana, Arnaud Lenoble. Caribbeetek - A public skeleton collection documenting the wild F.W.I. fauna.. 28th Congress of the International Association of Caribbean Archaeology., Jul 2019, Bridgetown, Barbados. halshs-02413043

**HAL Id: halshs-02413043**

**<https://shs.hal.science/halshs-02413043>**

Submitted on 10 Jan 2022

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## A public skeleton collection documenting the wild F.W.I. fauna

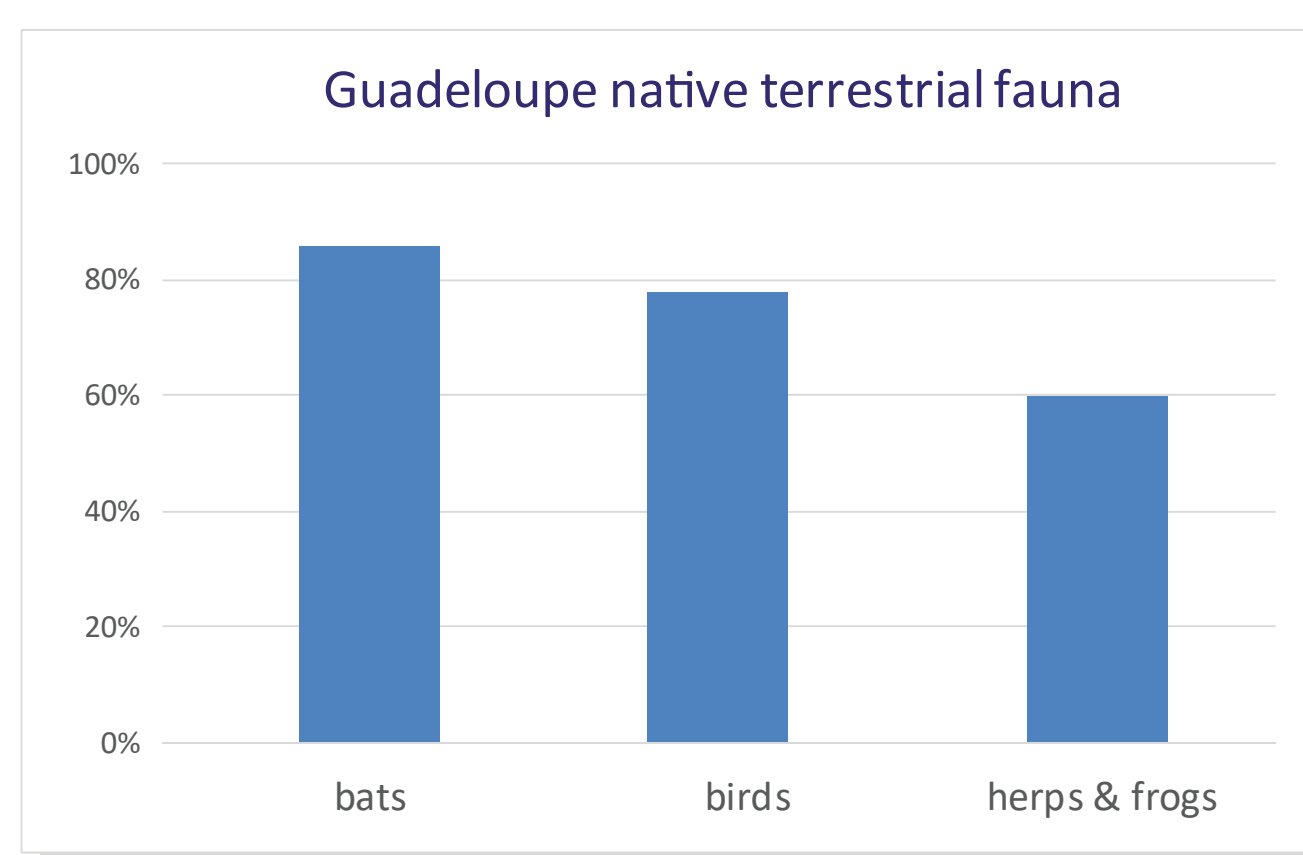
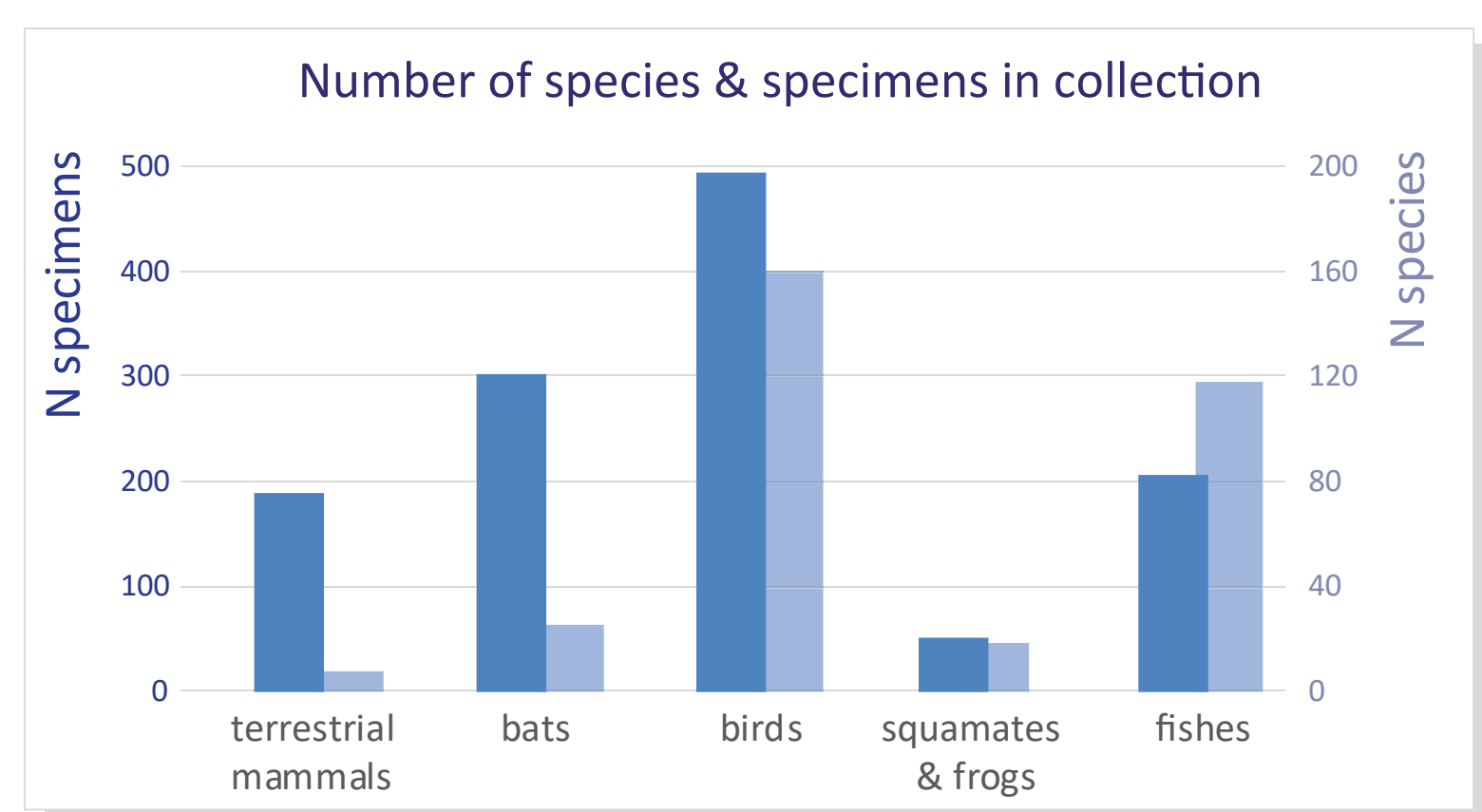
The Edgar Clerc Departmental Museum (Guadeloupe Museum of Archaeology) and the PACEA laboratory (CNRS-University of Bordeaux-MCC) have collaborated to develop a collection of comparative animal anatomy focusing on Caribbean wild fauna.

Caribbeetek is named in honour of Frederik A. Ober who carried out the first major naturalist collections in the Lesser Antilles during the second half of the 19th century and described his travels in several books, including the famous "*Camp in the Caribbees: the adventures of a naturalist in the Lesser Antilles*".

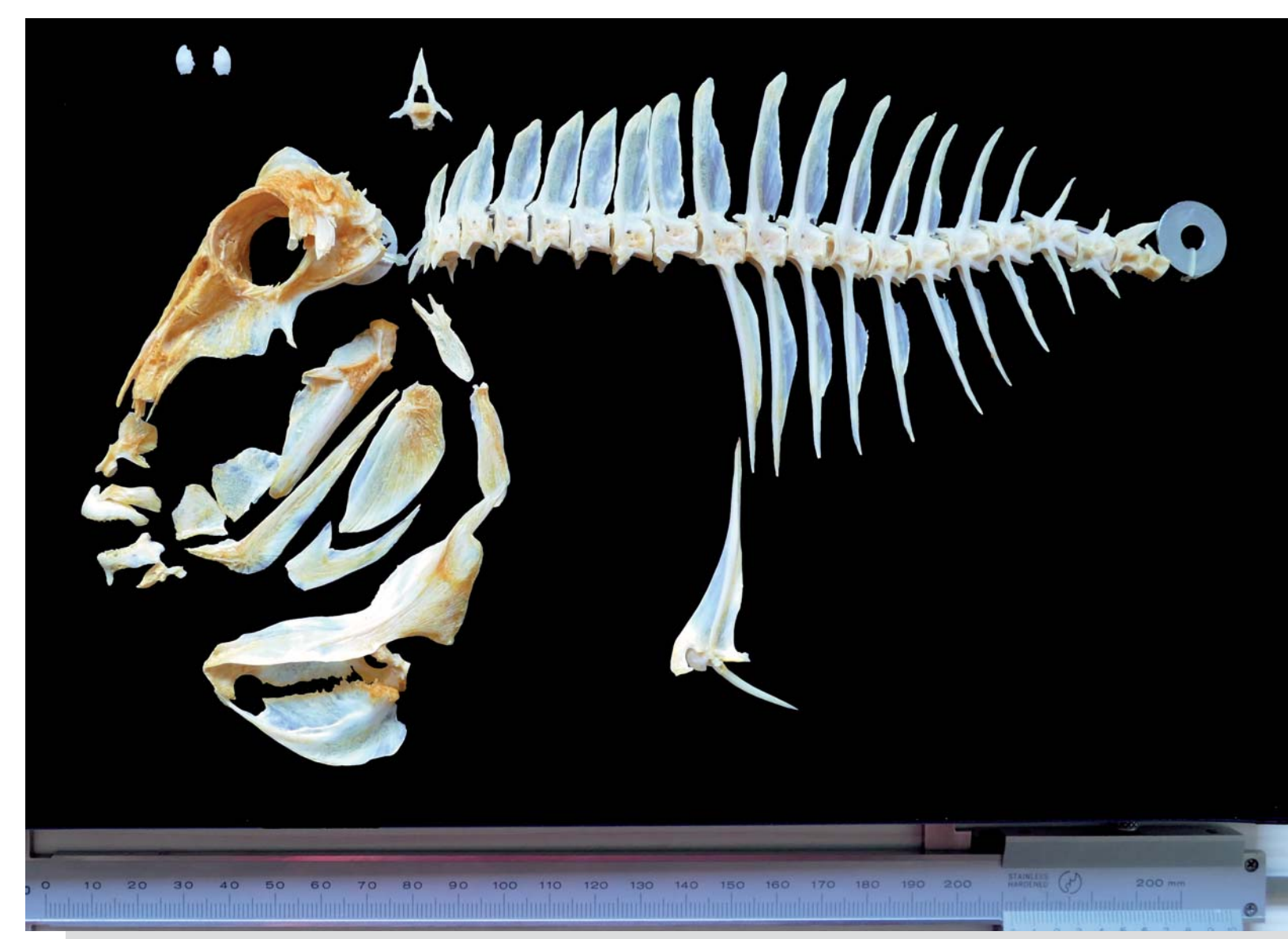
### Aim

A well-known limitation of Caribbean zooarchaeology and paleontology is the difficulty of making taxonomic determinations on the basis of partial or fragmentary skeletal elements from taxa whose osteology is either or not described and that are frequently absent from most comparative collections.

Caribbeetek was created in 2012 to support paleozoological studies in Guadeloupe (Bivaag project and then ECSIT project). It initially focused on terrestrial fauna (chiropterans, birds, reptiles and amphibians). The collection was recently extended to fishes to aid archeozoological studies of pre-Columbian assemblages. It should soon be enriched with turtles and marine mammals.



Geographical origin of the specimens (physical and virtual).  
Colors – green: > 100 specimens, yellow: > 50 sp., blue: > 10 sp., pink: < 10 sp.



Specimen of Ocean surgeonfish (Acanthurus bahianus) in the collection.

### Acquisition, preparation & specimen documentation

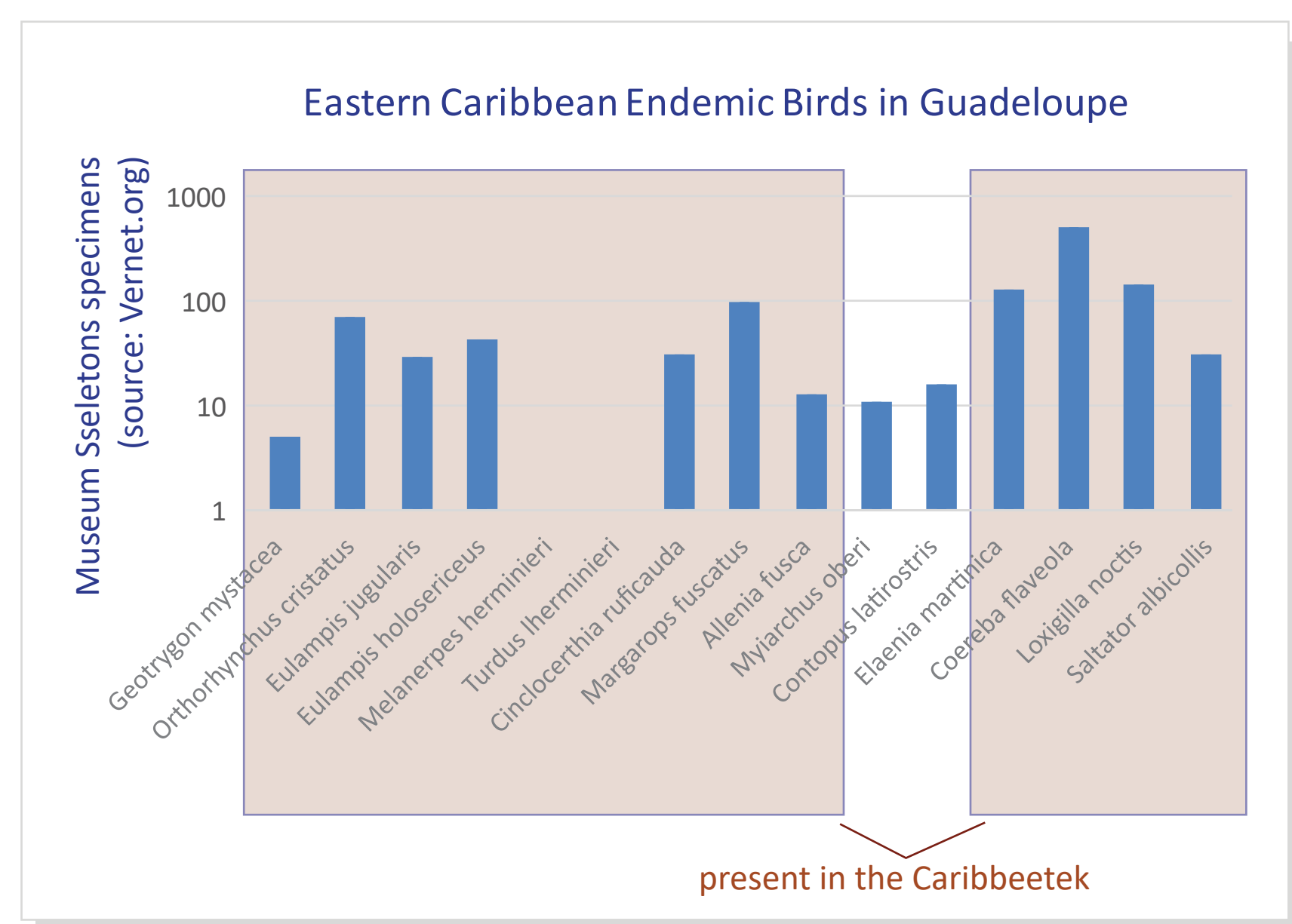
Most of Caribbeetek's specimens were obtained via cession from public structures that manage the Antillean natural environment: Guadeloupe wildlife Office, Martinique Regional Natural Park, St Martin Nature Reserve, St Barthelemy Territorial Environment Agency. Others were acquired from animal health centres, zoos, taxidermists, livestock farms, hunters, inter-institutional exchanges or dedicated collecting actions. All acquisitions of wild specimen are carried out with authorisations and under the agreement of the Wildlife French Office.

Contextual information includes the geographical origin and biology of the specimens. Tissue samples are sent to interested research institutions (MNHN, Inra) in order to contribute to a better knowledge of the Caribbean fauna.

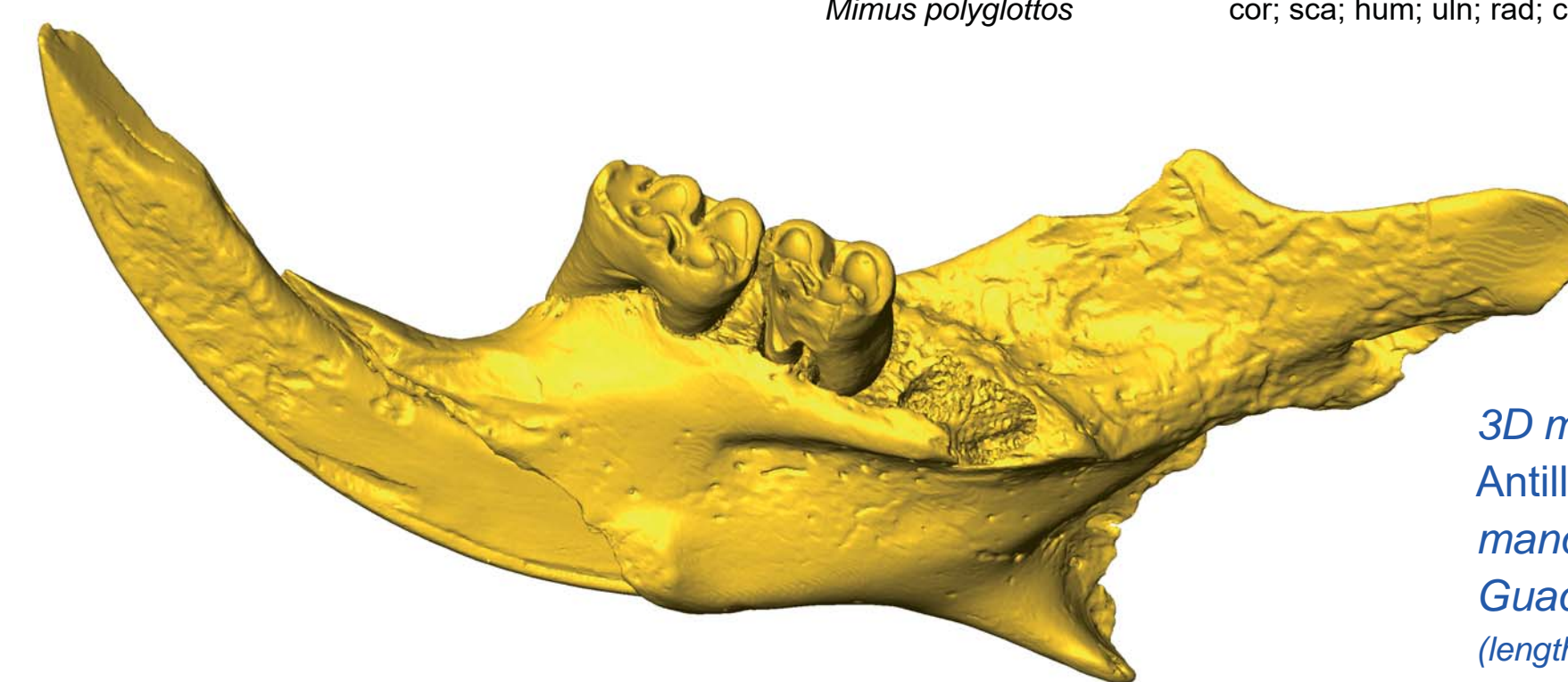
Protocols specific to each faunal group have been adapted for the preparation of skeletons. The most common process is enzymatic digestion following the method of Sorensen *et alii* (2010).

### Content

- ✓ The collection includes 1243 specimens documenting over 300 species.  
*Birds are the most represented, followed by bats and fishes.*
- ✓ 5% corresponds to 3D models derived from CT-scans of specimens preserved by others institutions.  
*This solution is used for documenting rare, endangered or extinct species.*
- ✓ Guadeloupe's wild fauna is the best represented, with representation rates above 60%.  
*This is particularly true for birds with 90 of the 118 native species present in the collection. Moreover, the Guadeloupe avifauna includes sixteen so-called "patrimonial species" that group together the endemic species of Guadeloupe with endemic species of the Eastern Caribbean. Fourteen of these species are represented in Caribbeetek.*
- ✓ Inter-museum specimen exchanges and 3D models have allowed the collection to be extended to representatives of other Caribbean islands.  
*The collection can serve as a basis for studies of vertebrate fauna carried out in all of the Lesser Antilles.*
- ✓ Specimens documenting intraspecific variability are used to support university studies dedicated to osteological or paleoecological examinations of Caribbean terrestrial fauna.



Skeleton of the endemic Guadeloupe Woodpecker (Melanerpes herminieri)



3D model of a Antillomys rayi mandible from Guadeloupe (length of the specimen: 3.2 cm)

CLASS	FAMILY	SPECIES	ELEMENT
Mammals	Cricetidae	Antillomys rayi	cox; tib; calc
	Phyllostomidae	Brachyphylla pumila	hum
		Ardops nicholisi	sku; man; hum
		Chiromys trinitatum	hum
		Chiromys villosus	hum
		Phyllotis falcatus	hum
		Stenomys rufum	sku; man; hum
		Stenomys thomasi	sku; man; hum
		Uroderma bilobatum	hum
		Monophyllus redmani	sku; man; hum
		Phyllomys poeyi	sku; man; hum
		Eptesicus guadeloupensis	sku; man; hum
Birds	Rallidae	Laterallus jamaicensis	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Rallus longirostris	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Rallus limicola	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Porphyrio martinicus	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Fulica americana	cor; sca; hum; uln; rad; cmc; fem; tib; tar
	Columbidae	Jacana spinosa	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Patagioenas inornata	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Geotrygon montana	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Geotrygon chrysis	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Leptotila wellsi	cor; sca; hum; uln; rad; cmc; fem; tib; tar
	Strigidae	Athene cucularia	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Chordeiles minor	cor; sca; hum; uln; rad; cmc; fem; tib; tar
	Caprimulgidae	Chordeiles gundlachii	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Caprimulgus cayennensis	cor; sca; hum; uln; rad; cmc; fem; tib; tar
	Turdidae	Sialia sialis	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Catharus fuscescens	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Catharus ustulatus	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Turdus fumigatus	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Dumetella carolinensis	cor; sca; hum; uln; rad; cmc; fem; tib; tar
	Mimidae	Ramphocinclus brachyurus	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Allenia fusca	cmc
		Cincloerithia ruficauda	cmc
		Toxostoma rufum	cor; sca; hum; uln; rad; cmc; fem; tib; tar
		Mimus gundlachii	sku; man; cor; sca; hum; uln; rad; cmc; fem; tib; tar

### Accessibility

- ✓ Caribbeetek is a public collection, freely available to any researcher who requests access for research purpose;
- ✓ All virtual models are available on demand, free of charge, and without counterpart;
- ✓ Inter-institutional exchanges and specimen loans are possible.