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WAR
WILDLIFE AT RISK



MAMMALS OF VIETNAM



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VOLUME 2

CARNIVORA AND EULIPOTYPHILA

MAMMALS OF VIETNAM

Volume 2 - Carnivora and Eulipotyphla

(Monograph)

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FOREWORD

Wild mammals (Mammalia) in general are an integral part of global biodiversity and are Vietnam resources in particular, that play an extremely important role. They function in forest ecosystems, terrestrial, wetland and marine areas. Mammals are also valuable animal resources in economic development, social culture and environmental protection. Significantly, it is regrettable and feared that the wildlife fauna in Vietnam is day by day declining in both quantity and quality. Some species have even been threatened with extinction due to exploitation, deforestation and loss or fragmentation of their habitat. In addition, there are problems due to illegal hunting, trapping, trading, and transporting wildlife species including mammals of the order Carnivora and Eulipotyphla. Along with these problems, the control of law enforcement by agencies in charge of wildlife conservation management is still loose. This is due to the lack of strong legal tools, lack of, or, inadequate or enough scientific documents to use as a basis for detailed and clear guidance and reference. These are necessary for identifying species, especially rare and precious animals that are in danger of being lost in nature. They are also important reasons which make law enforcement forces (rangers, police, customs) confused in handling violations. Such violations affect the management and conservation of wild animals, including wild mammal species of the orders Carnivora and Eulipotyphla; important members of the ecosystem.

In order to fill the shortcomings, in addition to respecting the law, the propaganda and raising of scientific understanding and awareness about the valuable role of the biodiversity of Vietnam mammal fauna in the sustainable socio-economic development through updated and methodically compiled scientific documents to ensure scientific validity is extremely important and necessary. Therefore, based on the accumulation of experience in collecting, analyzing and processing relevant documents along with field research in all regions of the country a group of authors who are international scientists have compiled the book series: Mammals of Vietnam - Volume 2 - Carnivora and Eulipotyphla. These scientists are from The Australian National University, The Natural History Museum London, and Vietnamese

scientists come from VNU University of Science, Vietnam National University of Forestry, Vietnam Academy of Science and Technology. The book is a scientific work, compiled meticulously and seriously, ensuring the scientific content of taxonomy, ecology, and conservation. The authors are specialized zoology researchers who have harmoniously combined traditional taxonomy with molecular techniques. These contributed to the adjustment and rearrangement of some taxons in the order Carnivora, and the order Eulipotyphla in Vietnam according to the modern taxonomy system. These are in line with international practices along with some basic characteristics of ecology and conservation status. This is a very valuable scientific document not only for teaching and training young cadres who are doing research and teaching biology in universities and research institutes, but also as a scientific manual useful for officials who manage, control and conserve wild species. It is also a useful scientific monograph for those who want to learn and discover hidden interesting things in nature.

I am very honored and proud, believe in the creativity, enthusiasm, and responsibility of the authors' collective and would like to introduce the book series Mammals of Vietnam - Volume 2 - Carnivora and Eulipotyphla, published by Vietnam National University Press, Hanoi to scientists, teachers and readers.

Thank you very much!

Professor. Dr. Dang Huy Huynh

President of the Vietnam Zoological Association

ASEAN Biodiversity Hero

BẢN ĐỒ HÀNH CHÍNH NƯỚC CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM ADMINISTRATIVE MAP OF SOCIALIST REPUBLIC OF VIETNAM



BỘ TÀI NGUYÊN VÀ MÔI TRƯỜNG
CỤC ĐO ĐẠC VÀ BẢN ĐỒ VIỆT NAM

TỈ LỆ SCALE 1 : 9 000 000

Bản đồ này được cung cấp để đăng tải trên Cổng thông tin
địa lý và các trang thông tin điện tử của Cơ quan nhà nước
và các tổ chức, cá nhân.



The late Professor Colin P. Groves

ABBREVIATIONS

2n	number of chromosomes
BB	Braincase breadth
BH	Braincase height
BM(NH)	Bristish Museum (Natural History)
Cbl. = CBL	Condylbasal length
cf.	confer
CIL	Condylolncisive length
COI	mitochondrial cytochrome oxidase subunit 1
cyt <i>b</i>	cytochrome <i>b</i>
E	Ear length
FN	Fundamental arm number
GSL	Greatest skull length
H+B=HB	Head and Body length
Hf = HF	Hindfoot
Ht	Height
HUS	VNU University of Science
IUCN	International Union for Conservation of Nature
ML	Mandible length
n	number of specimens
Pal.	Palatine
Skull	Skull length
T	Tail length
TL	Total length
UTR (with C')	Upper toothrow (with canine)
UTR (without C')	Upper toothrow (without canine)
UTR	Upper toothrow
Wt.	weight
Zyg.	Zygomatic breath

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