

Preface of *Catalogue of Chinese Coleoptera*

The Coleoptera (beetle) is the most diverse group on the earth, containing about 400,000 described species and accounting for approximately a quarter of the total number of the known organisms in the world. Beetles have a wide variety of feeding habits with large populations, broad distributions and great influence on human life. At present, there are nearly 35,000 species of beetles recorded in China, accounting for about one-eleventh of the total number of the known beetles in the world, of which there are many endemic species, rare or endangered species. Their uniqueness plays an important and irreplaceable role in the world beetle research.

Catalogue of world Coleoptera

The systematic catalogue of the world beetles began in the middle of the 19th century and was not completed until the end of the 20th century. However, due to the large number of beetle species, the time span of the compilation of the catalogue, and the relatively small number of experts and scholars involved in the work, the research level on beetles in different countries and regions have been uneven, and considerable problems have been found after its release. Some recent research progresses are also urgently needed to be added into the catalogue of world Coleoptera.

Europe is the birthplace of modern entomology, and its long history of research has made Europe one of the clearest regions in the world for insects and animals. Since the beginning of the 21st century, European beetle taxonomists have begun to work on the research and compilation of the *Catalogue of Palaearctic Coleoptera*. Up to now, eight volumes have been published.

Taxonomy study on Chinese beetles

China's land area accounts for about a quarter of the Asia's total land area, for about one fifteenth of the world's total land area, approximate to the entire European land area. China's vast territory spans two zoogeographical geographic regions in the Palaearctic and Oriental regions. There is considerable complexity in Chinese beetles. Chinese coleopterists began to study Chinese beetles from the early 20th century. Since the reform and opening of China, the academic exchanges between China and other countries have become more frequent. The research on Chinese beetles has now become a hot spot of entomological research in the world. Chinese scholars can also easily check and study type specimens deposited in foreign countries, which is greatly promoting the domestic beetle taxonomy. Unfortunately, due to various reasons, a systematic catalogue of Chinese Coleoptera has not existed yet, which has hindered the research of Chinese beetles, and also caused inconvenience to academic exchanges. We believe that it is imperative to publish a monograph on the catalogue of Chinese Coleoptera. The *Catalogue of Chinese Coleoptera* will be the first monograph in China to systematically record all taxonomical information on Chinese beetle species, and will contribute in the development of science and technology and modernization of China. Additionally, it will provide comprehensive information and basic information for beetle biodiversity conservation, resource development and utilization, pest control, national security, and national health.

Editorial plan

After repeated investigations and discussions, the first meeting of the Editorial Board of the *Catalogue of Chinese Coleoptera* held in Xi'an in July 2012 marked the official start of the book series. At this meeting, after a heated discussion by experts and scholars, the final writing rules for the catalogue, the division of volumes and the composition of the editorial board were accomplished. Prof. YANG Xingke from Institute of Zoology, Chinese Academy of Sciences was unanimously recommended as Editor-in-Chief of the book series. From nearly 20 universities and research institutes across the country, more than 100 entomological researchers will participate in the compilation of the book series, covering most scholars on domestic beetle researches. Based on the classification system, group size and volume balance, the book series will be divided into 11 volumes and is expected to be delivered in three years. Each volume will have its own editorial board, references, index, etc. This project has been partly supported by the grants from National Natural Science Foundation of China and Chinese Academy of Sciences. At the same time, in the process of editing and research, a lot of supports from some international counterparts have also received, which are greatly appreciated.

Taxonomic information

To facilitate international academic exchanges, the catalogue is written in English and uses the latest internationally recognized Coleoptera classification system (Bouchard *et al.*, 2011), following internationally accepted catalogue formats and *International Code of Zoological Nomenclature*. The catalogue section of all volumes will include all available valid and invalid names before 1st January 2019. Only extant species are included and the extinct are rejected. Additionally, misspellings, misidentifications, other nomina nuda, all names under subspecies level (e.g. morpha, natio, race, subvariety, aberration, variety, form, etc.) are not included in this book series.

The valid names of genus and species include the name of the author and the year of the publication. For species level, the brief reference information, type locality (TL), type depository (TD), synonyms, are also provided. Abbreviations used in this book series are as following: homonyms (HN), replacement names (RN), nomina oblita (NO), nomina protecta (NP), doubtful assignment (DA), erroneous assignment (EA). The abbreviations for beetle collections will be provided separately in each volume.

The arrangement of each volume

- Volume 1 General account, Archostemata, Myxophaga, Adephaga (Gyrinidae, Trachypachidae, Rhysodidae, Carabidae (partly))
- Volume 2 Carabidae (major part)
- Volume 3 Staphylinidae
- Volume 4 Hydrophiloidea, Scirtoidea, Dascilloidea, Buprestoidea, Byrrhoidea, Hydraenidae, Ptiliidae, Agyrtidae, Leiodidae, Silphidae
- Volume 5 Scarabaeoidea
- Volume 6 Elateroidea, Derodontoidea, Bostrichoidea, Lymexyloidea, Cleroidea
- Volume 7 Cucujoidea
- Volume 8 Tenebrionoidea
- Volume 9 Chrysomeloidea: Vesperidae, Disteniidae, Cerambycidae
- Volume 10 Chrysomeloidea: Megalopodidae, Chrysomelidae
- Volume 11 Curculionidae

Distributional information

The distributions of the provincial administrative units in China are arranged according the order of the principle from north to south and from east to west. The distributions of the countries or regions outside of China are arranged according the order of the principle from close to and far from China. If the distribution areas are very far from China, the bigger area could be used, e.g. Africa, South America, etc.

For genus distribution

It is suggested to use bigger area for genus distribution, such as Asia, Europe, Africa, Oceania, North America, South America. If the genus is only found in a small area, the country names could be used as well.

For species distribution

Domestic:

Heilongjiang, Jilin, Liaoning, Inner Mongolia, Beijing, Tianjin, Hebei, Shanxi, Shandong, Henan, Shaanxi, Ningxia, Gansu, Qinghai, Xinjiang, Jiangsu, Shanghai, Anhui, Zhejiang, Hubei, Jiangxi, Hunan, Fujian, Taiwan, Guangdong, Hainan, Hong Kong, Macau, Guangxi, Chongqing, Sichuan, Guizhou, Yunnan, Xizang.

Overseas:

Mongolia, Russia (Far East), Korean Peninsula (or D. P. R. Korea, R. O. Korea), Japan, Ryukyu Islands, Vietnam, Laos, Cambodia, Thailand, India, Kashmir, Myanmar, Nepal, Bhutan, Sri Lanka, Philippines, Malaysia, Singapore, Kalimantan, Timor-Leste, Indonesia, Bangladesh, Pakistan, Afghanistan, Iran, Tajikistan, Uzbekistan, Turkmenistan, Kyrgyzstan, Kazakhstan, Russia (Siberia), Turkey, United Arab Emirates, Oman, Azerbaijan, Palestine, Bahrain, Georgia, Qatar, Kuwait, Lebanon, Maldives, Cyprus, Saudi Arabia, Brunei, Syria, Armenia, Yemen, Iraq, Israel, Jordan, Russia (Europe); Europe, Africa, Oceania, North America, South America.

(Notes: When Malay Peninsula, East Indies, or Andaman Islands are present in the distribution, they are arranged after Indonesia. When detail distribution in Russia is not clear, keep Russia after Mongolia.)

Preface of *Catalogue of Chinese Coleoptera*, Volume 9

This book is the ninth volume of *Catalogue of Chinese Coleoptera*, including three families, Vesperidae, Disteniidae and Cerambycidae. This book followed the system of Bouchard *et al.* (2011), placing all cerambycoids under the superfamily Chrysomeloidea. There are eight subfamilies under the family Cerambycidae: Parandrinae, Prioninae, Lepturinae, Necydalinae, Spondylidinae, Dorcasominae, Cerambycinae and Lamiinae. Although Bouchard *et al.* (2011) listed both Dorcasominae Lacordaire, 1868 and Apatophyseinae Lacordaire, 1869, we followed the one subfamily treatment.

This book is a combination of long-term research of Chinese and international colleagues, through zoological record and TITAN database (<http://titan.gbif.fr/>) and related scientific literatures. We use the international entomological catalogue to record all longicorn species distributing in China. All literatures before 2019 are included. Three families, 10 subfamilies, 83 tribes, 641 genera and 3,681 species/subspecies are included in this book. The tribes under subfamilies, the genera under tribes and the species/subspecies under genera are presented alphabetically. The whole volume shares a combination of literatures, instead of separated ones for each family or subfamily.

Family/Subfamily with the authors (in the bracket) and the results are as follows: Vesperidae (by LIN Meiyong & YANG Xingke) includes 1 tribe, 4 genera and 13 species/subspecies; Disteniidae (by LIN Meiyong & YANG Xingke) includes 3 tribes, 8 genera and 31 species; Parandrinae (by LIN Meiyong) includes 1 tribe, 1 genus and 2 species; Prioninae (by CHEN Li, LIU Zhiping & LI Zhu) includes 7 tribes, 33 genera and 117 species/subspecies; Lepturinae (by CHEN Li, LIU Zhiping & LI Zhu) includes 9 tribes, 93 genera and 566 species/subspecies; Necydalinae (by LIN Meiyong & YANG Xingke) includes 1 tribe, 2 genera and 25 species/subspecies; Spondylidinae (by CHEN Li, LIU Zhiping & LI Zhu) includes 4 tribes, 8 genera and 33 species/subspecies; Dorcasominae (by LIN Meiyong & YANG Xingke) includes 1 tribe, 5 genera and 20 species/subspecies; Cerambycinae (by CHEN Li, LIU Zhiping & LI Zhu) includes 28 tribes, 180 genera and 1,238 species/subspecies; and Lamiinae (by LIN Meiyong & Gérard L. Tavakilian) includes 28 tribes, 307 genera and 1,636 species/subspecies.

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