

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 3*

The family Staphylinidae, or rove beetle, is the largest group of Coleoptera, containing more than 64,000 described species classified in over 3,750 genera. Staphylinids exhibit extraordinary morphological diversifications, which may be one of the factors to their ecological success. These beetles play important roles in terrestrial ecosystems, being found in all major zoogeographic regions except for Antarctic, and occupy a broad range of ecological niches from deserts to tropical forests. Some of them inhabit nests of social insects (ants, termites, wasps), while others are associated with mammals and birds.

Catalogues are the most indispensable references used by systematists and biologists. Without catalogues it would be difficult to know what groups have been described or what species included in each group. Important catalogues regarding world Staphylinidae fauna were done by Bernhauer & Schubert (1910–1916), Bernhauer & Scheerpeltz (1926), Scheerpeltz (1933, 1934), and Herman (2001). A catalogue of the Palaearctic staphylinid fauna was published by I. Löbl & Smetana (2004) and I. Löbl & D. Löbl (2015). In addition, there were many local checklists or catalogues scattered in separated works. All of these provided basic and important references for studies on worldwide or regional staphylinid fauna.

A catalogue focusing on Chinese Staphylinidae has not been published so far. However, the Chinese genera and species of this family were covered in several works. *Catalogus Insectorum Sinensium* (Vol. III) by Wu (1937) listed 62 genera and 196 species (including subspecies and variations); *Catalog of the Staphylinidae (Insecta: Coleoptera)* by Herman (2001) included 156 genera and 1,179 species (excluding Aleocharinae, Paederinae, Pselaphinae and Scaphidiinae); *List of Chinese Insects* (Vol. II) by Hua (2002) recorded 262 genera and 1,330 species (including subspecies); *Catalogue of Palaearctic Coleoptera* (Vol. 2) by Löbl & Smetana (2004) contained 402 genera and 2,658 species, and the recent updated edition of this book (I. Löbl & D. Löbl, 2015) summarized 538 genera and 5,575 species from China.

China is a large country with complex topography, harboring diverse ecological environments and a rich staphylinid fauna. There have been incalculable unknown species and groups of this family in this region. In recent years, hundreds of new Chinese species were reported by domestic and foreign workers each year. In order to summarize the latest data of Chinese rove beetles, here we compile the present catalogue based on reviewing relevant literatures published before 1st January 2019, and record a total of 22 subfamilies, 578 genera, and 6,486 species (including subspecies). Data on simplified type locality, type depository, synonyms, homonyms, original and current genus-species combinations, and geographical distributions of each species are provided. A full bibliography is given. The purpose of this catalogue is to provide convenience for specialists to consult, and hope to promote future research regarding Staphylinidae.

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