Foreword

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China is the home to 20 species of living nonhuman primates and an equal if not much greater number of fossil and subfossil nonhuman primate species spanning the Eocene to the Holocene. Research on nonhuman primates in China today is highly diverse and involves many branches of medicine and natural history. After proceeding along a tortuous road for some years, research on nonhuman primates in China has been particularly vigorous in the last decade. Because 14 of the 20 species of extant primates in China live in Yunnan Province, the Kunming Institute of Zoology, located in the capital of Yunnan Province, has become the major focus for basic and applied studies in primatology in China.

Nonhuman primates were first bred for applications related to human medicine in China in the 1950s. Since then, captive-bred populations of *Macaca mulatta* have played important roles in research in human haematology, pathology and reproductive biology.

Studies of aspects of the natural history of nonhuman primates at the Kunming Institute of Zoology and other institutions have been wide-ranging, and have included studies of anatomy, evolution, classification, ecology, behaviour, reproductive biology, neurobiology, cytogenetics, molecular biology and conservation. Some of these studies have involved collaboration and financial support from foreign institutions. In recent years, training of Chinese scientists overseas has resulted in a dramatic raising of the standards of primatological research, to the extent that much of this research can be said to be of an international standard.

A brief resume of primatological research in China and, especially, at the Kunming Institute of Zoology, indicates the rapid broadening of the scope of research in recent years. In morphology, a series of descriptive anatomical studies of the gibbon, snub-nosed langur, rhesus monkey and leaf monkey has been published since 1964. Recent anatomical studies, some in collaboration with foreign scholars, have become focused more on aspects of function and biomechanics in the context of animal behaviour, and have increasingly involved the use of various multi-variate statistical techniques. In studies of the classification and taxonomy of nonhuman primates, recent work has resulted in the recognition of the pygmy slow loris, *Nycticebus pygmaeus*, and the white-headed langur, *Presbytis francoisi leucocephalus*, as well as three new subspecies of gibbons, *Hylobates lar*

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yunnanensis, *H. concolor jingdongensis*, and *H. c. furvogaster*. The Chinese snub-nosed langurs are now also recognized as three distinct species within the genus *Rhinopithecus*. In connection with ecology and behaviour of primates, great strides have been made since the mid-1970s in studies of *Rhinopithecus roxellana*, *R. brelichi*, *R. bieti*, *Macaca thibetana*, *Presbytis francoisi*, *Hylobates concolor* and *H. lar*, with some studies involving direct collaboration of non-Chinese scientists. In reproductive biology, detailed studies of *Macaca mulatta* have permitted the development of techniques of in vitro fertilization which may ultimately be applied to the breeding of endangered species. In neurobiology, rhesus monkeys

have also been used to study the processes of learning, memory and manipulation, and the organization of the prefrontal cortex. In cytogenetics and molecular biology, studies of chromosomal banding and mitochondrial DNA in species of Chinese primates have resulted in the incorporation of entirely new kinds of data into studies of phylogeny and classification. As a result of rapid growth in and integration of data from several of these areas, considerable progress has been made in the understanding of the evolution of nonhuman primates in China.

In connection with primate conservation, the growth of human populations in China and the rapid deterioration of primate habitats in some areas has prompted new initiatives, such as the recent establishment of the Center for Conservation Biology within the Kunming Institute of Zoology, for the development of conservation strategies.

Over the last decade, primatological research in China has grown steadily in quality and quantity, but there remains a need for increased depth, breadth and sophistication in research in order to meet the needs of the future. Cooperative investigations and worldwide exchanges of research materials and personnel will contribute significantly toward this goal and to the goal of increasing our fund of natural knowledge about primates and humans. Good primatology, like all good science, must be without boundaries.