

Preface

Cetaceans and primates have developed comparable cognitive abilities in different environments. Their social systems vary from dynamic fission–fusion to long-term stable societies; from male-bonded to bisexually bonded to matrilineal groups. Despite obvious differences in morphology and eco-physiology, there are many cases of comparable, sometimes strikingly similar, patterns of sociobehavioral complexity. Recent studies suggest that many of these similarities and differences are influenced by the ecological factors of their natural environments. A number of long-term field studies have accumulated a substantial amount of data on the life history of various taxa, their foraging ecology, social and sexual relationships, demography, and various patterns of behavior. We can now attempt to view primates and cetaceans in a comparative perspective: such comparisons between social animals that are evolutionarily distant but live in comparable complex, sociocognitive environments boost our appreciation of their sophisticated mammalian systems and may advance our understanding of the ecological factors that have shaped their social evolution.

Cetologists and primatologists, however, rarely get together to explore common interests of their research. To facilitate such an exchange of ideas, we initiated a sharing of knowledge and a discussion of the topics common to the studies of both taxa in a symposium at the 9th International Mammalogical Congress (IMC), held in 2005 in Sapporo, Japan. Many important topics were discussed, involving mating strategies, social behavior, social networks, foraging strategies, communication, social learning, culture, economics of behavior, behavioral plasticity, social evolution, and application of new research tools in field studies. Each topic was presented by a speaker and commenter from the two fields. The Congress was preceded by a symposium on the social ecology of primates and cetaceans held two days earlier in Kyoto. Another joint meeting took place in Cape Town, South Africa, during the 17th Biennial Conference of the Society for Marine Mammalogy in 2007, where we were joined by colleagues working on other group-living mammals including carnivores, ungulates, and pinnipeds. This edited volume was prepared as a collection of selected presentations from these three symposia and additional invited contributions. All chapters were reviewed by two or more external referees. The publication

took a long time owing to the difficulties of topic selection, logistics of communication with multiple authors, and occasional incompatibility of thoughts between authors addressing similar topics. We believe, however, that the time spent in compiling this volume increases the value of its content. We sincerely thank the authors for their contributions and fruitful discussions during the editing process.

This volume consists of four sections. The first section presents topics on social ecology of cetaceans and primates. Recent review of the theory of socioecology points out a need for multiple formulas rather than one comprehensive model to explain social relationships. Six chapters present cases of social and behavioral plasticity in primates and delphinids and offer views that in some cases might go beyond earlier interpretations. The second section, with five chapters, provides cases of long-term studies that address topics of social evolution and life history strategies. Because of the slow life histories of primates and cetaceans, longitudinal studies are necessary to gain an understanding of how ecology and natural history influence their behavior and social evolution. The third section presents five chapters with subjects ranging from behavior to demography, to population genetics and eco-toxicology, all directly related to current issues in conservation. The authors point out the susceptibility of primates and cetaceans to anthropogenic pressures and the importance of sound ecological research in addressing the challenges of conservation and management. The fourth section presents five selected topics on comparative studies of behavior: three of them resulted from the fruitful discussions at IMC 9. This comparative look at primates and cetaceans may at times bring us to new points of view that go beyond previous perceptions, facilitating a better understanding of the day-to-day challenges these animals face in the human-dominated world, which in turn may improve our capacity and capabilities of promoting conservation.

In the early days of our work on this volume, we requested that Prof. Toshio Kasuya and Prof. Toshisada Nishida write the Foreword and Afterword, respectively, because both these distinguished colleagues had dedicated their lifelong work to studying cetaceans and primates and advocating their conservation. They accepted our request, and Prof. Kasuya assumed also the role of convener of the symposium at IMC 9. The Foreword is now accompanying this volume; however, the Afterword was not completed as a result of the untimely death of Prof. Nishida in 2011. He had continuously encouraged us to edit this book and was patiently looking forward to its publication. We express our deepest sympathy to his loved ones and dedicate this book to him.

As mentioned earlier, the idea of creating this book emerged from a symposium at IMC 9 held in Sapporo in 2005. Our editing process was funded by the IMC 9 Memorial Project and funding from the Texas Institute of Oceanography at Texas A&M University, Galveston. We wish to thank Prof. Noriyuki Ohtaishi, Prof. Koichi Kaji, Prof. Takashi Saito, Prof. Keisuke Nakata, the members of the IMC 9 Organizing Committee, and Dr. Tammy Holiday of Texas A&M University for their support. The symposium in Kyoto was sponsored by Kyoto University's 21 COE Program "Formation of a Strategic Base for the Multidisciplinary Study of Biodiversity" and by the Japan Society for the Promotion of Science (JSPS)

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Kyoto, Japan
Cape d’Aguilar, Hong Kong

Juichi Yamagiwa
Leszek Karczmarski

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