

## Zoo Animals Behaviour Management And Welfare

*This book is intended as an introductory text for students studying a wide range of courses concerned with animal management, zoo biology and wildlife conservation, and should also be useful to zookeepers and other zoo professionals. It is divided into three parts. Part 1 considers the function of zoos, their history, how zoos are managed, ethics, zoo legislation and wildlife conservation law. Part 2 discusses the design of zoos and zoo exhibits, animal nutrition, reproduction, animal behaviour (including enrichment and training), animal welfare, veterinary care, animal handling and transportation. Finally, Part 3 discusses captive breeding programmes, genetics, population biology, record keeping, and the educational role of zoos, including a consideration of visitor behaviour. It concludes with a discussion of the role of zoos in the conservation of species in the wild and in species reintroductions. This book takes an international perspective and includes a wide range of examples of the operation of zoos and breeding programmes particularly in the UK, Europe, North America and Australasia. Visit [www.wiley.com/go/rees/zoo](http://www.wiley.com/go/rees/zoo) to access the artwork from the book.*

*Award Finalist 2018/19 Management of Animal Care and Use Programs in Research, Education, and Testing, Second Edition is the extensively expanded revision of the popular Management of Laboratory Animal Care and Use Programs book published earlier this century. Following in the footsteps of the first edition, this revision serves as a first line management resource, providing for strong advocacy for advancing quality animal welfare and science worldwide, and continues as a valuable seminal reference for those engaged in all types of programs involving animal care and use. The new edition has more than doubled the number of chapters in the original volume to present a more comprehensive overview of the current breadth and depth of the field with applicability to an international audience. Readers are provided with the latest information and resource and reference material from authors who are noted experts in their field. The book: - Emphasizes the importance of developing a collaborative culture of care within an animal care and use program and provides information about how behavioral management through animal training can play an integral role in a veterinary health program - Provides a new section on Environment and Housing, containing chapters that focus on management considerations of housing and enrichment delineated by species - Expands coverage of regulatory oversight and compliance, assessment, and assurance issues and processes, including a greater discussion of globalization and harmonizing cultural and regulatory issues - Includes more in-depth treatment throughout the book of critical topics in program management, physical plant, animal health, and husbandry. Biomedical research using animals requires administrators and managers who are knowledgeable and highly skilled. They must adapt to the complexity of rapidly-changing technologies, balance research goals with a thorough understanding of regulatory requirements and guidelines, and know how to work with a multi-generational, multi-cultural workforce. This book is the ideal resource for these professionals. It also serves as an indispensable resource text for certification exams and credentialing boards for a multitude of professional societies Co-publishers on the second edition are: ACLAM (American College of Laboratory Animal Medicine); ECLAM (European College of Laboratory Animal Medicine); IACLAM (International Colleges of Laboratory Animal Medicine); JCLAM (Japanese College of Laboratory Animal Medicine); KCLAM (Korean College of Laboratory Animal Medicine); CALAS (Canadian Association of Laboratory Animal Medicine); LAMA (Laboratory Animal Management Association); and IAT (Institute of Animal Technology).*

*Completely updated and revised, and synthesizing the recent explosion in animal welfare literature, the sixth edition of this best-selling textbook continues to provide a thorough overview of behaviour and welfare of companion and farm animals, including fish. The introductory section has been completely revised, with all following chapters updated, redesigned and improved to reflect our changing understanding.*

*Written by a world-leading expert and key opinion leader in animal behaviour and welfare, this text provides a highly accessible guide to the subject. It is an essential foundation for any veterinary, animal science, animal behaviour or welfare-focused undergraduate or graduate course.*

*Anthrozoology, the study of human-animal interactions (HAIs), has experienced substantial growth during the past 20 years and it is now timely to synthesise what we know from empirical evidence about our relationships with both domesticated and wild animals. Two principal points of focus have become apparent in much of this research. One is the realisation that the strength of these attachments not only has emotional benefits for people, but confers health benefits as well, such that a whole area has opened up of using companion animals for therapeutic purposes. The other is the recognition that the interactions we have with animals have consequences for their welfare too, and thus impact on their quality of life. Consequently we now study HAIs in all scenarios in which animals come into contact with humans, whether as pets/companions, farm livestock, laboratory animals, animals in zoos, or in the wild. This topical area of study is of growing importance for animals in animal management, animal handling, animal welfare and applied ethology courses, and also for people within psychology, anthropology and human geography at both the undergraduate and postgraduate level. It will therefore be of interest to students, researchers, and animal managers across the whole spectrum of human-animal contact.*

*Principles of Animal Training*

*Zoo Animals*

*Care and Management*

*Textbook of Wild and Zoo Animals*

*A Treatise for Students of Veterinary, Zoology, Forestry and Environmental Science*

*Animal-centric Care and Management*

*Basic Principles and Implications for Animal Welfare*

*This collection of essays from the past decade to discuss the critical issue of wildlife contraception and the first ever to take up contraception-both theory and practice-for wild animals in captivity. The authors, leading international experts on the subject, analyze the use of wildlife contraception for various animal populations, including nonhuman primates, ungulates, pinnipeds, cetaceans, and other mammals. The chapters examine and critique types of contraception, and their effects, and explore the best method for each situation. Using the most recent data and findings, this comprehensive collection addresses problems related to unrestricted population growth, the ethics of wildlife contraception, and regulatory issues for wildlife managers, animal rights organizations, zoos worldwide, and anyone interested in the humane control of animal populations.*

*"Animal training 101", the first handbook of its kind, finally offers a complete marriage of the science of animal behavior and the practical art of animal training. In one comprehensive volume, this approach is presented in a simple and practical way that will be useful to both the seasoned professional and a beginning level enthusiast working with animals of any species. --back cover.*

*Comprehensively explains animal learning theories and current best practices in animal training within zoos This accessible, up-to-date book on animal training in a zoo/aquaria context provides a unified approach to zoo animal learning, bringing together the art and science of animal training. Written by experts in academia and working zoos, it incorporates the latest information from the scientific community along with current best practice, demystifying the complexities of training zoo animals. In doing so, it teaches readers how to effectively train animals and to fully understand the consequences of their actions. Zoo Animal Learning and Training starts with an overview of animal learning theory. It describes the main categories of animal learning styles; considers the diverse natural history of zoo animals; reviews the research undertaken which demonstrates ultimate benefits of learning; and highlights the advantages and disadvantages of the different approaches. It also shows how the direct application of learning theory can be integrated into zoo animal management; discusses how other factors might affect development; and investigates situations and activities from which animals learn. It also explores the theoretical basis that determines whether enrichments are successful. Provides an easily accessible, jargon-free introduction to the subject Explores different training styles, providing theoretical background to animal learning theory as well as considerations for practical training programme – including how to set them up, manage people and animals within them and their uses. Includes ethical and welfare implications from professional animal trainers Offers commentary on the ethical and welfare implications of training in zoos Features contributions from global experts in academia and the zoo profession Uniquely features both academic and professional perspectives Zoo Animal Learning and Training is an important book for students, academics and professionals. Suited to senior undergraduate students in zoo biology, veterinary science, and psychology, and for post-graduate students in animal management, behaviour and conservation, as well as zoo biology. It is also beneficial to those working professionally in zoos and aquaria at different levels.*

*In the face of ever-declining biodiversity, zoos have a major role to play in species conservation. Written by professionals involved in in situ conservation and restoration projects internationally, this is a critical assessment of the contribution of zoos to species conservation through evidence amassed from a wide range of sources. The first part outlines the biodiversity context within which zoos should operate, introducing the origins and global spread of zoos and exploring animal collection composition. The second part focuses on the basic elements of keeping viable captive animal populations. It considers the consequences of captivity on animals, the genetics of captive populations and the performance of zoos in captive breeding. The final part examines ways in which zoos can make a significant difference to conservation now and in the future. Bridging the gap between pure science and applied conservation, this is an ideal resource for both conservation biologists and zoo professionals.*

*The Biology of Animal Stress*

*Zoo Ethics*

*Key Questions in Animal Behaviour and Welfare*

*Behaviour, Management and Welfare*

*An Introduction to the Science and Technology*

*Environmental Enrichment for Captive Animals*

*As species extinction, environmental protection, animal rights, and workplace safety issues come to the fore, zoos and aquariums need keepers who have the technical expertise and scientific knowledge to keep animals healthy, educate the public, and create regional, national, and global conservation and management communities. This textbook offers a comprehensive and practical overview of the profession geared toward new animal keepers and anyone who needs a foundational account of the topics most important to the day-to-day care of zoo and aquarium animals. The three editors, all experienced in zoo animal care and management, have put together a cohesive and broad-ranging book that tackles each of its subjects carefully and thoroughly. The contributors cover professional zookeeping, evolution of zoos, workplace safety, animal management, taxon-specific animal husbandry, animal behavior, veterinary care, public education and outreach, and conservation science. Using the newest techniques and research gathered from around the world, Zookeeping is a progressive textbook that seeks to promote consistency and the highest standards within global zoo and aquarium operations.*

*"This book is a study and revision guide for students following programmes of study in which animal behaviour and welfare is an important component. It contains 600 multiple-choice questions (and answers) set at three levels - foundation, intermediate and advanced".*

*The concept of the 3Rs (Refinement, Reduction and Replacement), has been used as a framework for improving the welfare of laboratory animals for the last half century. By establishing an animal-centric view on housing and management, Animal-centric Care and Management: Enhancing Refinement in Biomedical Research takes Russell and Burch's definition of Refinement as "elimination of inhumanities" and goes further. Rather than fitting animals into experimental conditions, it encourages readers to adjust conditions to better meet the behavioral, emotional, physical, and physiological needs and preferences of the animals. The team of expert authors, from the fields of laboratory animal science, ethology, biology as well as animal training, provide ideas for creating housing conditions and handling procedures that induce, to the best of current abilities and knowledge, a long-term positive state of mind in the animals under our care. This book is written for animal caretakers, animal health technicians, researchers, animal facility managers, laboratory animal veterinarians, and anyone who engages in work with living experimental animals or is interested in the continuous improvement of laboratory animal welfare. This interdisciplinary guide will act as a catalyst, resulting in multiple viewpoints and fields collaborating to optimize laboratory animal welfare.*

*This Open Access book brings together authoritative voices in animal and environmental ethics, who address the many different facets of changing human-animal relationships in the Anthropocene. As we are living in complex times, the issue of how to establish meaningful relationships with other animals under Anthropocene conditions needs to be approached from a multitude of angles. This book offers the reader insight into the different discussions that exist around the topics of how we should understand animal agency, how we could take animal agency seriously in farms, urban areas and the wild, and what technologies are appropriate and morally desirable to use regarding animals. This book is of interest to both animal studies scholars and environmental ethics scholars, as well as to practitioners working with animals, such as wildlife managers, zookeepers, and conservation biologists.*

*Issues, Methods, and Applications*

*The Challenges of Compassionate Conservation*

*Wildlife Contraception*

*Zoo Conservation Biology*

*An Introduction to Zoo Biology and Management*

*Interim Report*

*Keeper Tales of Training with Positive Reinforcement*

*Modern zoos and aquaria are playing an increasingly active and important role in protecting and managing global biodiversity. Many zoos include wildlife conservation in their mission and have started changing the focus of their institutions in order to increase even further the benefits of their activities for in situ wildlife conservation. With these developments, the following searching questions are now being asked: What is the true role of zoos in conservation? How can they contribute more significantly to global conservation efforts? What are the unique attributes of zoos that can be applied in the conservation landscape? And should zoos be doing more? In parallel with this voluntary movement, legal requirements for zoos to support conservation in the wild are also becoming more stringent. This 2007 book defines a conservation vision for zoos and aquaria that will be of interest to those working in zoos, alongside practitioners and researchers in conservation.*

*Zoo Animals: Behaviour, Management, and Welfare is the ideal resource for anyone needing a thorough grounding in this subject, whether as a student or as a zoo professional. While in modern zoos and aquariums do important research and conservation work and teach visitors about the challenges of animals in the wild and the people striving to save them. They help visitors to consider their impact and think about how they can make a difference. Yet for many there is a sense of disquiet and a lingering question remains – can modern zoos be ethically justified? Zoo Ethics examines the workings of modern zoos and considers the core ethical challenges that face those who choose to hold and display animals in zoos, aquariums or sanctuaries. Using recognised ethical frameworks and case studies of 'wicked problems', this book explores the value of animal life and the impacts of modern zoos, including the costs to animals in terms of welfare and the loss of liberty. It also considers the positive welfare and health outcomes of many animals held in zoos, the increased attention and protection for their species in the wild, and the enjoyment and education of the people who visit zoos. A thoughtfully researched work written in a highly readable style, Zoo Ethics will empower students of animal ethics and veterinary sciences, zoo and aquarium professionals and interested zoo visitors to have an informed view of the challenges of compassionate conservation and to develop their own defensible, ethical position.*

*This interim report assesses issues related to animal management, husbandry, health, and care at the Smithsonian Institution's National Zoological Park. The report finds that there are shortcomings in care and management that are threatening the well-being of the animal collection and identifies the "most pressing" issues that should be addressed.*

*Zoo Animal Learning and Training*

*Zookeeping*

*A Study and Revision Guide*

*Animal Care and Management at the National Zoo*

*Carrots and Sticks*

*Anthrozoology*

*Ethics on the Ark*

*Environmental enrichment is a simple and effective means of improving animal welfare in any species – companion, farm, laboratory and zoo. For many years, it has been a popular area of research, and has attracted the attention and concerns of animalkeepers and carers, animal industry professionals, academics,students and pet owners all over the world. This book is the first to integrate scientific knowledge and principles to show how environmental enrichment can be used on different types of animal. Filling a major gap, it considers thehistory of animal keeping, legal issues and ethics, right through a detailed exploration of whether environmental enrichmentactually works, the methods involved, and how to design and manageprogrammes. The first book in a major new animal welfare series Draws together a large amount of research on differentanimals Provides detailed examples and case studies An invaluable reference tool for all those who work with orstudy animals in captivity This book is part of the UFAW/Wiley-Blackwell AnimalWelfare Book Series. This major series of books produced incollaboration between UFAW (The Universities Federation for AnimalWelfare), and Wiley-Blackwell provides an authoritative source ofinformation on worldwide developments, current thinking and bestpractice in the field of animal welfare science and technology. For details of all of the titles in the series see <http://www.wiley.com/go/uaw> spartstyle="color: #1d6999;">www.wiley.com/go/uaw/a.jspan*

*This book draws together, for the first time, the published research on the behaviour, ecology and welfare of elephants living in zoos, circuses, logging camps and other captive environments in a single comprehensive volume. It takes a multi-disciplinary approach, considering the work of zoo biologists, animal behaviour and welfare scientists, veterinarians, philosophers, zoo educators, tourism specialists, conservation biologists, lawyers and others with a professional interest in elephants. Elephants Under Human Care: The Behaviour, Ecology, and Welfare of Elephants in Captivity is a valuable resource for zoo biology and animal welfare researchers. It is also useful for students and zoo professionals and managers looking for a comprehensive guide to current research on captive elephants. Although not intended as a husbandry manual, the book discusses some of the elephant welfare standards developed by the Association of Zoos and Aquariums (AZA) and the British and Irish Association of Zoos and Aquariums (BIAZA) and their relationship to current knowledge of captive elephants. Includes results of captive studies compared with field studies of wild elephants Features original images of elephant behaviour as they live and behave under human care Includes results of the author's original research including many original photographs Considers future implications of research for the welfare and conservation of elephants, both for elephants in captivity and those living in the wild*

*Zoos, aquaria, and wildlife parks are vital centres for animal conservation and management. For nearly fifteen years, these institutions have relied on Wild Mammals in Captivity as the essential reference for their work. Now the book reemerges in a completely updated second edition. Wild Mammals in Captivity presents the most current thinking and practice in the care and management of wild mammals in zoos and other institutions. In one comprehensive volume, the editors have gathered the most current information from studies of animal behavior; advances in captive breeding; research in physiology, genetics, and nutrition; and new thinking in animal management and welfare. In this edition, more than three-quarters of the text is new, and information from more than seventy-five contributors is thoroughly updated. The standard text for all courses in zoo biology, Wild Mammals in Captivity will, in its new incarnation, continue to be used by zoo managers, animal caretakers, researchers, and anyone with an interest in how to manage animals in captive conditions.*

*The practical focus of this authoritative, comprehensive encyclopedia promotes the understanding and improvement of animals' behaviour without compromising welfare. It will be an essential resource for practising veterinarians, researchers and students in zoology and ethology, and for all those working with and interested in animals and their welfare. --Book Jacket.*

*Zoos in the 21st Century*

*Animal Domestication and Behavior*

*Catalysts for Conservation?*

*Animal Training 101*

*Interactive management of wild and captive animals*

*Handbook on Wild and Zoo Animals*

*Human-Animal Interactions in Domesticated and Wild Animals*

*This dictionary is intended as a guide to the terminology used in a wide range of animal-related programmes of study including agriculture, animal care, animal management, animal production, animal welfare, veterinary nursing, wildlife conservation and zoo biology. In total it contains over 5,300 entries. It contains a wide range of terms used in the fields of veterinary science, physiology and zoology, as students whose primary interests are animal welfare or zoo biology also need to have some understanding of disease, how animal bodies function and how animals are classified. It also contains some legal terms, and reference to some legal cases, to help students understand how the protection, use and conservation of animals is regulated by the law. Some people, famous animals, literature and films have influenced the way we think about, and behave towards, animals. For this reason, the book includes references to important books about animals, famous animals who have starred in films or been the subject of scientific studies, along with short biographies of famous scientists and others who have studied animals or established conservation or animal welfare organisations.*

*Zoo Animals: Behaviour, Management and Welfare addresses the key questions surrounding the keeping of zoo animals, and reveals how we can apply our ever-growing understanding of animal behaviour to ensure zoo animals are managed as effectively as possible, without their health and welfare being compromised.*

*This book synthesizes existing knowledge of the process of domestication and how domestication has affected the behavior of captive wild and domesticated animals, including both farm, zoo and companion animals. Three broad themes are addressed: Genetic contributions to the process of domestication; experimental contributions to the process of domestication; and the process of feralization (i.e. the adaptation of domesticated animals when returned to their natural habitat). Written by a world authority on the subject, this book makes a highly original contribution to the literature.*

*How Anxious Dogs, Compulsive Parrots, and Elephants in Recovery Help Us Understand Ourselves*

*An Introduction to Animal Behaviour Testing*

*The Encyclopedia of Applied Animal Behaviour and Welfare*

*Principles and Techniques for Zoo Management, Second Edition*

*Enhancing Refinement in Biomedical Research*

*Broom and Fraser's Domestic Animal Behaviour and Welfare 6th Edition*

*Wild Mammals in Captivity*

*The subjects of stress and animal welfare are currently attracting immense interest. This book brings together a range of perspectives from biomedical research (including human health and animal models of human stress) on stress and welfare, and assesses new approaches to conceptualising and alleviating stress.*

*Zoo Animals: Behaviour, Management, and WelfareOxford University Press*

*In the modern era, zoos and aquariums fight species extinction, educate communities, and advance learning of animal behaviour. This book features first person stories and scientific reviews to explore ground breaking projects run by these institutions. Large-scale conservation initiatives that benefit multiple species are detailed in the first section, including critical habitat protection, evidence-based techniques to grow animal populations and the design of community education projects. The second section documents how zoos use science to improve the health and welfare of animals in captivity and make difficult management decisions. The section on saving species includes personal tales of efforts to preserve wild populations through rehabilitation, captive breeding, reintroduction, and public outreach. The concluding section details scientific discoveries about animals that would have been impossible without the support of zoos and aquariums. The book is for animal scientists, zoo professionals, educators and researchers worldwide, as well as students of zookeeping and conservation.*

*""Science Friday" Summer Reading Pick"" Discover magazine Top 5 Summer Reads"" ""People magazine Best Summer Reads"" "A lovely, big-hearted book...brimming with compassion and the tales of the many, many humans who devote their days to making animals well"(The New York Times). Have you ever wondered if your dog might be a bit depressed? How about heartbroken or homesick? Animal Madness takes these questions seriously, exploring the topic of mental health and recovery in the animal kingdom and turning up lessons that Publishers Weekly calls "Illuminating...Britain's delightful balance of humor and poignancy brings each case of life...[Animal Madness's] continuous dose of hope should prove medicinal for humans and animals alike." Susan Orlean calls Animal Madness "a marvelous, smart, eloquent book—as much about human emotion as it is about animals and their inner lives." It is "a gem...that can teach us much about the wildness of our own minds"(Psychology Today).*

*ZOO ANIMALS BEHAVIOUR MANAGEMENT & WELFA*

*Animals in Our Midst: The Challenges of Co-existing with Animals in the Anthropocene*

*Animal Behavior and Wildlife Conservation*

*Elephants Under Human Care*

*Zoombly*

*Conservation Education and Outreach Techniques*

*The Complete and Practical Guide to the Art and Science of Behavior Modification*

*This book provides an introductory text covering the use and misuse of behaviour tests applied to animals. By including illustrative examples from a variety of species, the book inspires the animal scientist to think about what a given behavioural test can be used for and how the results can be interpreted. This text includes: the dos and don'ts of running behaviour tests and interpreting the results; many clear, simple illustrations which make the information readily accessible, down to earth, practical advice yet a tho*

*whole range of species from companion, farm, zoo, laboratory and wild animals; succinct yet comprehensive text, designed to be read cover to cover and stimulate further reading. This book is an essential item in the researcher's toolkit when embarking on and devising any animal behaviour test and is valuable to students, established researchers, teachers and practitioners of applied ethology, animal welfare science, and veterinary science.*

*Growing recognition of the complexity of animals' physical, social, and psychological lives in the wild has led both zookeepers and the zoo-going public to call for higher environmental standards for animals in captivity. Bringing together the work of animal behaviorists, zoo biologists, and psychologists, Second Nature explores a range of innovative strategies for environmental enrichment in laboratories and marine parks, as well as in zoos. From artificial fleeing-prey devices for leopards to irregular feeding schedules for related animals that can breed more easily and can exert some control over their environments. Moving beyond the usual studies of primates to consider the requirements of animals as diverse as reptiles, amphibians, marine mammals, small cats, hooved grazers, and bears, contributors argue that whether an animal forages in the wild or plays computer games in captivity, the satisfaction its activity provides—rather than the activity itself—determines the animal's level of physical and psychological well-being. Second*

*help zoo-bred animals develop the stamina and adaptability for survival in the wild, and how it can produce healthier lab animals that yield more valid test results. Providing a theoretical framework for the science of environmental enrichment in a variety of settings, the book reviews and extends a humane approach to the keeping and conservation of animals.*

*Training should be about helping animals succeed, not boosting our egos. That idea is at the core of Zoombility ? a combination of humility and Dr. Stafford's years of experience training animals at zoos and other facilities. Using only reinforcement ? never punishment ? Zoombility outlines steps you can follow to teach your animal calm, cooperative and complex behaviors that will hold up in any situation. Using Zoombility's 3Rs (request, response, reinforce) you'll be able to train any animal, regardless of age or past behavior*

*through helpful behaviors like sit, stay, and so much more. And using the techniques you'll learn in Zoombility, you'll be able to create your own recipes to successfully shape any behavior.'?t works'? ? Jack Hanna*

*Zoo Animals Welfare: Thoroughly reviews the scientific literature on the welfare of zoo and aquarium animals. Maple and Perdue draw from the senior author's 24 years of experience as a zoo executive and international leader in the field of zoo biology. The authors' academic training in the interdisciplinary field of psychology provides a unique perspective for evaluating the ethics, practices, and standards of modern zoos and aquariums. The book offers a blueprint for the implementation of welfare measures and an o*

*potential of zoos, and the authors have written an inspirational book to guide the strategic vision of superior, welfare-oriented institutions. The authors speak directly to caretakers working on the front lines of zoo management, and to the decision-makers responsible for elevating the priority of animal welfare in their respective zoo. In great detail, Maple and Perdue demonstrate how zoos and aquariums can be designed to achieve optimal standards of welfare and wellness.*

*The Behaviour, Ecology, and Welfare of Elephants in Captivity*

*Zoos, Animal Welfare, and Wildlife Conservation*

*Creative Conservation*

Scientific Foundations of Zoos and Aquariums  
Principles and Applications of Domestic Animal Behavior  
Behaviour, Management, and Welfare  
Dictionary of Zoo Biology and Animal Management

**Past progress and future challenges R.J. Wheeler Royal Zoological Society of Scotland, Edinburgh, UK. In the past two decades much has been achieved in the sphere of breeding endangered species, and we should be pleased that our co operative efforts have already borne so much fruit. However, on balance and despite the best efforts of conservationists, the position of wildlife in the wild places where they are best conserved has become worse, often dramatically worse. Before returning to the United Kingdom in 1972, I was in Uganda for 16 years, most of which time was spent as Chief Warden of Murchison Falls National Park. Our main problem was that an over-population of large mammals was having a devastating impact on the habitat. Devastation was being wrought on woodland areas by the arrival of large numbers of elephants into the sanctuary of the Park, following changes in land use in the areas outside the Park. These changes were in response to the requirements of an ever-expanding human population.**

**Asking Animals**