

Cambridge University Press  
978-1-107-02502-8 - The Domestic Cat: The Biology of its Behaviour: Third Edition  
Edited by Dennis C. Turner and Patrick Bateson  
Excerpt  
[More information](#)

I

---

# Introduction

Cambridge University Press  
978-1-107-02502-8 - The Domestic Cat: The Biology of its Behaviour: Third Edition  
Edited by Dennis C. Turner and Patrick Bateson  
Excerpt  
[More information](#)

---

Cambridge University Press

978-1-107-02502-8 - The Domestic Cat: The Biology of its Behaviour: Third Edition

Edited by Dennis C. Turner and Patrick Bateson

Excerpt

[More information](#)

# 1 Why the cat?

---

Dennis C. Turner and Patrick Bateson



*The Domestic Cat: The Biology of its Behaviour* (3rd edition), ed. D.C. Turner and P. Bateson. Published by Cambridge University Press. © Cambridge University Press 2014.

The domestic cat is a much-loved and well-known animal. In a number of Western countries it has become even more popular than ‘man’s best friend’, the dog, as is apparent in the pet population statistics presented in Table 1.1. On farms their value as a rodent catcher has been appreciated for centuries. Loved and familiar though they are, cats are still perceived by many people as something of an enigma. They are friendly to people and yet the individual, in Rudyard Kipling’s phrase, ‘walks by himself’, readily accepting the comforts of the human home and yet behaving as though his

**Table 1.1** Cat and dog population figures for Europe<sup>a</sup> and the United States<sup>b</sup> in 2010 and for the United States, Canada, Australia and Japan in 2007<sup>c</sup>

Country	Cat population in 000s	Dog population in 000s
Austria	1744	612
Belgium	1884	1330
Czech Republic	1750	3152
Denmark	673	580
Estonia	244.5	174.6
Finland	665	651
France	10,965	7595
Germany	8200	5300
Greece	595	665
Hungary	2240	2856
Ireland	310	425
Italy	7400	7000
Netherlands	2877	1493
Norway	747	452
Latvia	476	269.8
Lithuania	651.3	746.3
Poland	5550	7311
Portugal	991	1940
Romania	3891	4166
Russia	18,000	12,520
Slovakia	290	250
Slovenia	400	240
Spain	3385	4720
Sweden	1269	749
Switzerland	1507	445
United Kingdom	8000	8000
USA <sup>b</sup>	86,400	78,200
USA <sup>c</sup> , 2007	83,884.3	67,085.1
Canada, 2007	8300	5002
Australia, 2007	2450	3484
Japan, 2007	9788	13,179

<sup>a</sup>Source: FEDIAF, The European Pet Food Industry, Facts & Figures 2010, Brussels.  
<sup>b</sup>Source: American Pet Products Association, cited on the ASPCA website for owned animals: [www.aspc.org/about-us/fay/pet-statistics.aspx](http://www.aspc.org/about-us/fay/pet-statistics.aspx).  
<sup>c</sup>Source: Bateson, A. (2008). *Global Companion Animal Ownership and Trade: Project Summary, June 2008*. London: World Society for the Protection of Animals, WSPA.

independence were total. For many cat owners, their companion animal brings something of the wild into their living rooms. For others, the cat's paradoxical qualities cause mistrust and even hatred. Certainly the cat, more than any other domestic animal, has been as much persecuted as it has been appreciated. It is surrounded by fables and myths. Even many of the people who love cats are inclined to treat them as mysterious. However, in an era in which a great deal has been discovered about the biology of behaviour, many of the cat's former secrets have been uncovered.

While many popular books on cats continue to appear, the accounts of cat behaviour are usually based on the authors' personal experiences with only a few individual animals. Cat owners often make careful observations on their own pets, but most people also appreciate that each cat has a distinct personality and its own idiosyncratic style of behaving. It is difficult and often misleading to make sweeping generalisations about 'The Cat'. Scientists who study larger numbers of animals are also wary of generalising too much. They feel that they must wait until colleagues studying other individuals in other situations also publish their findings. If the results are different (as they often are), the reasons for the discrepancy must be found. However, the body of knowledge has grown sufficiently large in recent years, so that more confident statements can now be made both about the common features of domestic cats and about the origins of their differences.

The first scientific treatise on cat behaviour was published by the late Paul Leyhausen in German in 1956, followed by several editions in that language and partially rewritten for publication in English in 1979. The first review of cat behaviour based fully on the results of many scientific studies and written by the active researchers in the field was the first English edition of this book in 1988, followed by German and Dutch editions. Many of the field studies had not been published previously. We hope and believe that our book awakened the interest of behavioural biologists, ecologists and some veterinarians. Over the following decade, many new studies appeared in scientific journals, and the editors and chapter authors integrated those new studies with those we had included in the first edition into the second edition of *The Domestic Cat* (2000), which also appeared in Japanese in 2006. The present third edition continues to consider the cat in the light of the modern work on its behavioural biology, but we have also included chapters directed at lay people. While the findings and conclusions presented in the first two editions of this book have remained largely valid, we have asked some past authors to update their chapters and solicited a number of new authors who are experts on other topics to join us in preparing this latest edition.

The book begins with a section entitled 'From Kitten- to Adulthood'. Chapter 2 describes the normal pattern of behavioural and physical development, which proceeds in a highly ordered and integrated fashion. Such development is not simply a matter of preparing for adult life, however. The young animal must be able to survive in the year-long period of growth and it must have adaptations for the special conditions it will meet on the way to adulthood. It must also have adaptations for acquiring information and skills that it will need later in its life. Finally, it must be able to cope with variation in the environment. This adaptability is especially important in relation to the development of its predatory behaviour.

Cambridge University Press

978-1-107-02502-8 - The Domestic Cat: The Biology of its Behaviour: Third Edition

Edited by Dennis C. Turner and Patrick Bateson

Excerpt

[More information](#)

Chapter 3 considers normal reproductive behaviour of adult cats, starting off with maternal behaviour during the gestational phase and birth, but especially while raising the kittens. Already in this chapter it becomes apparent how socially flexible cats can be both in the home setting and in outdoor colonies where mothers can nurse kittens of other females of the group which have given birth at about the same time. However, maternal neglect, even cannibalism of kittens, are also topics of concern, especially to cat breeders, and are considered in this chapter. Normal mating behaviour in the cat is described before the more common problems of breeding males and females are discussed.

Communication in the domestic cat, first with other cats then with humans, is the topic of Chapter 4. Olfactory, auditory, visual and tactile communication are all important. The authors build a strong case for the evolution of one new signal from a non-signalling behaviour in domestic cats. Domestication may also have allowed other signals to diversify or develop a secondary function, e.g. in the context of cat–human interactions.

The second section of the book is entitled ‘Social Life and Ecology’. Chapter 5 brings together and updates the findings of several chapters in earlier editions of *The Domestic Cat* on social and spatial organisation of cats with outdoor access, their hunting behaviour and effects on prey species. Clearly food (including prey) abundance and distribution play a major role in domestic cat behavioural ecology. However, outdoor colonies are truly structured and functional social groups rather than loose aggregations of individuals around concentrated abundant sources of food. Chapter 6 considers the social behaviour of cats in the human home, a topic that will interest many readers – even though only a handful of studies have been conducted in the home setting. This chapter also includes basic information about the cat–human relationship and the socialisation of kittens toward both conspecifics and other species.

‘Cats and People’ is the next section of the book. Chapter 7 traces the origins, domestication and early history of the house cat. Although cats have been terribly persecuted at certain times in history, they were also treated with great affection bordering on reverence from the earliest stages of their domestication. Chapter 8 looks at cultural differences in human attitudes toward cats today in select countries from Asia, the Middle East, Europe and South America with different historical and religious backgrounds. The interplay between human and cat personalities is examined in Chapter 9, in which the authors consider the various factors influencing styles of interaction that make each human–cat relationship unique. They examine the question: Why it is possible to socialise with non-human animals from an evolutionary perspective before presenting latest results from an observational study of owner–cat behaviour and interactions.

The next section of the book is devoted to various aspects of ‘Cat Breeding and Cat Welfare’. It begins with a chapter defining animal welfare and quality of life and how these can be assessed (Chapter 10). Particular attention is paid to welfare issues in cat shelters and procedures followed in such shelters, before considering how housing in different situations (boarding and breeding catteries, rescue shelters and sanctuaries, research facilities, veterinary practices and private homes) affects cat welfare. Chapter 11 is about

Cambridge University Press

978-1-107-02502-8 - The Domestic Cat: The Biology of its Behaviour: Third Edition

Edited by Dennis C. Turner and Patrick Bateson

Excerpt

[More information](#)

breed and gender behaviour differences in relation to the ancient history and origin of the domestic cat. Indeed, some breeds have an ancient origin as determined by recent genetic analyses. Results of a new study of 15 popular breeds of cats to determine a genetic basis of behavioural differences between breeds are summarised and differences between intact males and females, independently of breed, are considered. Chapter 12 explains the more recent history of cat breeding and showing of cats, explaining how breed standards have developed, how judges are trained and how titles are awarded. Artificial (human) selection is not without consequences for the health and welfare of the animals, of which the cat fancy is becoming increasingly aware. Health and, in particular, the impact of stress on disease and 'sickness behaviours' are the main topics of Chapter 13. Early life experiences, chronic environmental disturbances and environmental enrichment all play important roles in keeping cats healthy and in a good state of welfare. Cats can also develop behavioural problems, the topic of Chapter 14, which tarnish the relationship of their owners to them. The most common problems – inappropriate urination and defecation, urine marking, various forms of aggression, scratching furniture, and eating grass and plants – are explained and suggestions for solutions are given.

Chapter 15 begins the last section entitled 'The Future'. Given the enormous popularity of cats, i.e. the tremendous increase in owned and, unfortunately, free-ranging unowned cats, 'cat population management' becomes a necessity. After explaining 'why', this chapter informs 'how', based upon years of experience, case studies in different countries and a theoretical population model.

Finally, as a postscript by the editors of the book, Chapter 16 demonstrates that while a lot has been learned in the last few years about the behavioural biology of the cat, a great deal more remains to be discovered in the future. Whether or not cats walk by themselves, they still preserve some of their secrets.

Cambridge University Press  
978-1-107-02502-8 - The Domestic Cat: The Biology of its Behaviour: Third Edition  
Edited by Dennis C. Turner and Patrick Bateson  
Excerpt  
[More information](#)

---

Cambridge University Press  
978-1-107-02502-8 - The Domestic Cat: The Biology of its Behaviour: Third Edition  
Edited by Dennis C. Turner and Patrick Bateson  
Excerpt  
[More information](#)

II

---

From Kitten- to Adulthood

Cambridge University Press  
978-1-107-02502-8 - The Domestic Cat: The Biology of its Behaviour: Third Edition  
Edited by Dennis C. Turner and Patrick Bateson  
Excerpt  
[More information](#)

---