

Societies of Wolves and Free-ranging Dogs

S Spotte (2012). Published by Cambridge University Press, The Edinburgh Building, Cambridge CB2 8RU, UK. 377 pages Hardback (ISBN 978-1-107-01519-7). Price £80.00, US\$125.00.

This is a puzzling book in several respects. The first surprise is the author, Stephen Spotte, a marine scientist by trade, who appears to have no previous history of working with, or writing about, either dogs or wolves. According to his profile on Amazon, Spotte's other publications include various practical guides to keeping tropical marine aquaria, a post-modernist critique of zoos, a personal memoir, and some brief forays into fiction. While scientists who cross inter-disciplinary boundaries can sometimes bring fresh and creative perspectives to old topics, the journey is invariably a risky one and must be done extremely well to succeed. Unfortunately, *Societies of Wolves and Free-ranging Dogs* does not succeed.

Another puzzle concerns the book's intended readership. Given the author's non-canine background, it would be reasonable to expect him to aim for an educated lay audience. Instead, he has produced an exceedingly dry, densely written and exhaustively referenced tome, full of lengthy and sometimes inscrutable digressions. The endnotes and bibliography combined run to 122 pages, approximately one-third of the total, and while this undoubtedly gives the book some value as a work of reference, it results in a text that is decidedly heavy going. And despite these efforts to marshal all the facts, there are some startling inaccuracies. In the opening paragraph of chapter 1, for instance, Spotte states that all of the extant species of canids, "have 78 chromosomes, and all are known to admix" (p 1). Conflating the 35 members of the family Canidae with the 6 (or 7, if you count the domestic dog) members of the genus *Canis* is an unfortunate mistake to make in the first paragraph of an ostensible work of science, and it may lead some readers to doubt the value of the volume as a whole.

Although the book undoubtedly has some useful and insightful content, and certainly covers a lot of ground, it is further marred by an apparent compulsion to challenge or refute every existing idea and theory about dogs and wolves through selective use of contradictory evidence. The first two chapters, for example, address the phylogenetic origins of wolves and dogs, and provide an unbalanced account of dog domestication in which, according to Spotte, wolves were deliberately domesticated for practical purposes (as hunting aides and/or as food items) despite a lack of reliable evidence in support of this view. The author also claims that the domestication of the dog, "took place multiple times in many places involving any number of wolf lineages" (p 20), which may or may not be the case, depending on which set of archaeological and/or molecular evidence one chooses to

accept (Larson *et al* 2013). Similarly, in chapters 3 and 4, which focus on communication (visual and tactile, and olfactory and vocal, respectively), Spotte rejects the idea that dogs or wolves possess anything resembling self-awareness, and states that a *theory of mind* is, "something no nonhuman animal possesses" (p 34). Proving or disproving the existence of self-awareness or theory of mind in non-human animals is notoriously difficult, and implying that the jury has already reached a final verdict on this question seems premature at this juncture. Chapter 5 considers use of space and territory, and states matter-of-factly that, "[m]ost free-ranging dogs we see on city streets do not have owners" (p 108), which is almost certainly untrue (Davlin & VonVille 2012), and also concludes that it is 'doubtful' that either pet or free-roaming domestic dogs form or defend territories, in spite of clear evidence to the contrary (Macdonald & Carr 1995; Hart *et al* 2006). Likewise, in chapter 6, Spotte uses a small number of contradictory studies to argue that the idea that larger pack sizes in wolves exist to facilitate the capture of large prey species is simply a myth. The remaining chapters are relatively uncontroversial. Reproduction is covered in chapters 7 and 8, and the final chapter (9) contains an odd collection of disparate topics including the process of socialisation, the role of play, the influence of captivity on social behaviour in wolves, the issue of dominance in free-roaming dogs, the question of 'leadership', and a slightly mysterious final section on dingoes and why Australian Aborigines 'failed' to domesticate them.

On some topics, Spotte seems to wander out of his depth. When trying to explain the evolution of *helping* or *allop parenting* behaviour among non-breeding members of wolf packs, for example, he rejects Hamilton's theory of *kin selection* because, "an animal must be able to distinguish kin from other individuals", before kin selection can function (p 193). Wolves, he notes, tend to treat their relatives no differently than other familiar individuals, and so kin selection is therefore out of the question. But when a species, such as the wolf, tends to live naturally in closed groups of closely related individuals, the evolution of kin recognition systems is unnecessary for kin selection to operate. All that is needed is the ability to distinguish group members (which are usually kin) from outsiders (which may not be). Even the author's rare attempts at humour tend to be somewhat jarring. In a section on olfactory communication, he mentions observations of male wolves chewing reflectively on urine-covered snow left by an oestrus female, and then remarks that, if wolves, "can literally taste pornography then humans might not be the most exalted species after all" (p 64).

The concept of a book dedicated to comparing the societies of free-roaming dogs, dingoes and wolves is certainly a good one in principle, and in some areas Spotte succeeds in raising important unanswered questions. The book is ultimately disappointing, however, because the author appears to have bitten off more than he can chew. Lack of experi-

ence in the field of canine science leads him to make poorly supported claims and obvious errors of fact, while his iconoclastic bent tempts him to dismantle well-healed theories and beliefs without offering anything useful in their place. Given the book's focus, it is also disappointing that Spotte never attempts to discuss the ambivalent relationship that exists between human and free-ranging canine societies, or the tremendous welfare problems that arise from this association. *Societies of Wolves and Free-ranging Dogs* may prove to be useful for its extensive bibliography, but readers should ingest its contents with a grain of salt.

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