Evolution and Christian Faith: Reflections of an Evolutionary Biologist
Joan Roughgarden
Island Press, Washington
2006; 155 pgs
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I admit that curiosity drove me to review a book on evolution and religious faith. After all, the book is subtitled "Reflections of an Evolutionary Biologist," albeit one with some rather unorthodox and almost universally rejected criticism of evolutionary theory (much of it directed at my own field of sexual selection). However, despite the warning signs (my e-search of science journals had turned up no reviews of this 2006 tome), I naively thought I might see a reasonable discussion of the science-religion interface; perhaps of the sort espoused by other evolutionary thinkers such as M. Ruse (2005) and especially S. J. Gould in his 1999 "non-overlap" argument that science and religion cover separate but distinct "magisteria." My interest was piqued on page 3, as I was about to "understand today's collision between science and Christian faith," but dismay set in with Chapter 2, when I was instructed to turn to Genesis in the Bible (King James Version) to seek out some biology. Roughgarden's chapters (11 aimed at Christians and one for evolutionary biologists) present a bizarre fusion of science and religion. The author actually gleans from Genesis that "from the beginning" God created genetic diversity. Then she argues that Jesus in the Gospels used natural selection and random mutation metaphors in his teaching. This is pure biblical literalism that belongs on the extremes where the individual is everything, like moths, to where the individual is nothing, like ants. Instead breeding in most species relies on a biological infrastructure provided by the animal's social system.

I should note that the book does have a few good bits. The chapters directed at Christians include a primer of basic evolutionary biology (from the 90% the author deems to be correct) and has an agreeable critique of ideas about Intelligent Design. The frustration that Roughgarden must feel when she reads yet another incarnation of intelligent design/creationism that ignores reasoned responses from scientists matches my frustration when reading yet another version of Roughgarden's rant that sexual selection is "the only part of Darwin's work that is . . . seriously incorrect" (p. 103). Originally proposed in her 2004 book, another lengthy discussion of the supposed weak science surrounding sexual selection emerged in Roughgarden (2007), and a less strident version (in a refereed journal) appears in Roughgarden et al. (2006). All of these published arguments are selective in their citations and have precious little in the way of reasonable response to her critics (some 50 of these are listed by Kavanagh [ed.], 2006). Her views reveal a strong bias influenced by religious indoctrination and "personal trials." I will not respond here, save for one brief moan. My studies on insects with reversed sex (mating) roles (part of the literature ignored by her publications) have explained why sexual selection and sexual differences vary so greatly. To Roughgarden, however, the very existence of these reversals means that "sexual selection . . . doesn't square up with the facts" (p. 107). For the most recent response to this, in a well-reasoned and detailed critique of Roughgarden on sexual selection and gender/sexuality issues (including Joan Roughgarden's biases), I highly recommend Dickemann's (2008) review of Roughgarden (2004). In conclusion, biologists should avoid Evolution and Christian Faith. Even the one positive aspect—arguments against intelligent design—is better presented elsewhere and does not outweigh the inherent problems in this tract.

References

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The Bees of the World 2nd ed.
Michener, C. D.
2007, 992 pages
Johns Hopkins Univ. Press. Baltimore, MD 0-8018-8573-6
Price $180.00 (hard)

Scarcely seven years after Charles Michener published his first edition of The Bees of the World (2000) to great acclaim, garnering 5-star reviews in top scientific journals including Nature