



or wrote to were glad to help, particularly with information about their own discoveries and triumphs. David Gill, a Scottish astronomer who observed the southern skies from South Africa, became a particularly important source for her. In London she met and talked frequently with William Huggins, a pioneer English astrophysicist, and with Norman Lockyer, the founder of *Nature*. At first she featured their work, but later she came to believe that Huggins was past his prime and that Lockyer claimed more than he actually proved. She paid for that by getting negative reviews of her later books in *Nature*. Pushy Americans such as W. W. Campbell and young George Ellery Hale flooded her with their results, and she found some of them important enough to be included in her books.

Clerke also kept up-to-date by attending scientific lectures in London. As a woman she was not permitted to join the Royal Astronomical Society, nor to attend its monthly meetings, but she entered its precincts to use its library and to view exhibitions of recent results, especially astronomical photographs. She wrote many articles for the *Observatory*, the astronomical magazine closely associated with the society, although not owned by it. She was later allowed to come to the society's meetings as a guest of a member, and towards the end of her life she was elected as an honorary member.

Brück has written an excellent book. Her thorough research in numerous archives and in Clerke's publications is well documented in the notes, and numerous well-chosen photographs illustrate the text. There is an extremely informative chapter on women in astronomy in the Victorian era. She concludes, no doubt correctly, that a few women could get better jobs in astronomy in America than in Britain, but it seems to me that the difference was only marginal. The case of Alice Everett, a Cambridge graduate, illustrates this well. She did good work as an assistant at Greenwich, Potsdam and Vassar College in the United States, but couldn't get a permanent position at any of them. She also applied unsuccessfully to the Lick Observatory, where the director, James E. Keeler, was searching for a male observer at the time.

Brück paints a fascinating picture of the rich fabric of British astronomy and astrophysics at the end of the nineteenth century. This is a highly readable, well-produced, attractive book.

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## A bestial feast

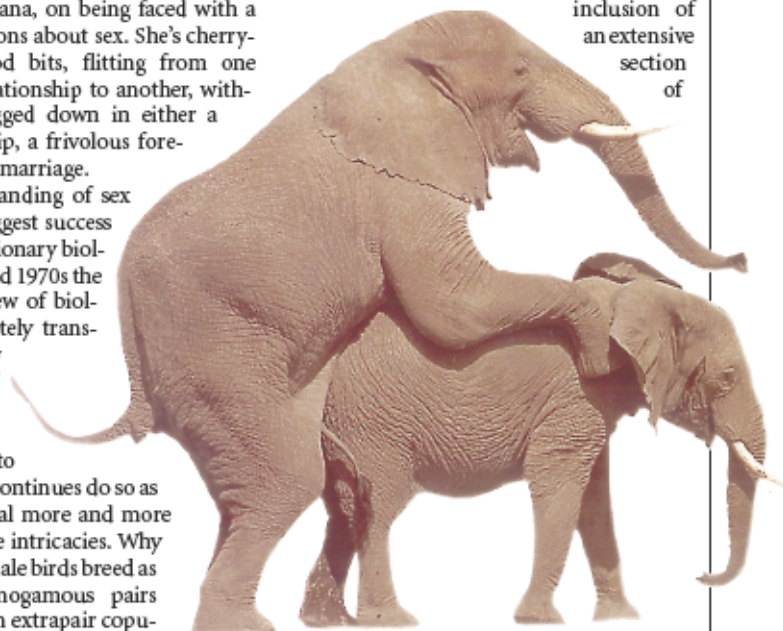
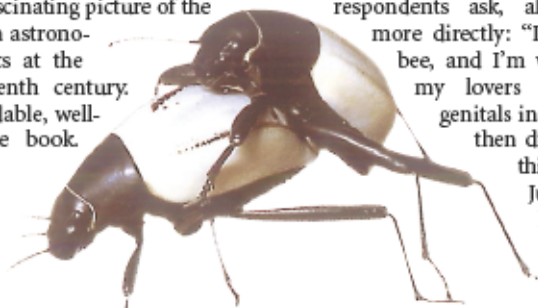
**Dr Tatiana's Sex Advice to All Creation: The Definitive Guide to the Evolutionary Biology of Sex**

by Olivia Judson  
*Metropolitan Books/Chatto & Windus: 2002. 320 pp. \$23/£16.99*

**Tim Birkhead**

The first time I went to an international conference and stayed in an expensive hotel, I was amazed by the veritable wall of food that confronted me at breakfast the next morning. It was an optimal forager's fantasy and I creamed off all the tasty bits from a wide range of dishes. As far as I could tell, everyone else did the same. And that is precisely what Olivia Judson has done, under the guise of agony-aunt Dr Tatiana, on being faced with a surfeit of questions about sex. She's cherry-picked the good bits, flitting from one extramarital relationship to another, without getting bogged down in either a lengthy courtship, a frivolous foreplay or a tedious marriage.

Our understanding of sex is one of the biggest success stories in evolutionary biology. Since the mid 1970s the 'selfish gene' view of biology has completely transformed our view of all aspects of reproduction, from anatomy and physiology to behaviour, and continues to do so as researchers reveal more and more of its remarkable intricacies. Why do male and female birds breed as apparently monogamous pairs yet still engage in extrapair copulations? Why do some flatworms have a dozen penises when some of us have to make do with one? Why does the female spotted hyena possess a clitoris the size of a courgette, only to have it ripped apart when she gives birth? These are the kind of questions that Dr Tatiana's concerned correspondents ask, albeit rather more directly: "I'm a queen bee, and I'm worried. All my lovers leave their genitals inside me and then drop dead. Is this normal?"



thing like Dame Edna Everage with a PhD. Nonetheless, as every agony aunt should, Dr Tatiana proffers light-hearted, informative advice. Sex is fun, and fun to read about, especially as in this case it is presented in bite-sized pieces that you can snack on as the fancy takes you. What's on offer spans the entire animal kingdom, from rats to rotifers, and bacteria to birds, and somewhat less digestibly includes some theory too.

The danger, of course, is that presenting research findings as a kind of buffet can trivialize the entire process, turning it into a fast-food fix with none of the benefits of a balanced meal. But Judson walks this particular hedonistic tight-rope with aplomb — her text is both wonderfully entertaining and authoritative — and the inclusion of an extensive section of

notes and references ensures that she retains her scientific respectability. All in all this is a stimulating feast of extraordinary sexual practices, and my advice is to place *Dr Tatiana's Sex Advice* in the smallest room, where it will keep you entertained and informed for hours.

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