

/ PREFACE /



Downtown Philadelphia.

City plants grow spontaneously in sidewalk cracks surrounded by buildings and streets. Small invertebrates reside in walled courtyards. How do members of apparently isolated urban populations find mates? How do they avoid inbreeding?

Plants and animals that inhabit cities are often common and widespread outside of cities. A rich literature illuminates their systems for mating. However, this literature is scattered, and it typically focuses on locations that are not urban.

This book explores the natural history of sex, from bacteria and fungi to plants and animals, excluding human beings. It focuses on cities. It examines sex as a state of being, as in male or female, and as a process, as in mating. An introductory section depicts the city as both facilitator and inhibitor of mating. Chapters that follow contain over a hundred illustrated essays on mating systems and sexual behavior. Most essays are limited to a single page and highlight one reproductive trait of one urban species or group. A concluding essay considers urban reproductive diversity as a whole.

Species that the chapters examine meet three criteria: (1) they inhabit Philadelphia; (2) published studies illuminate their reproductive biology; and (3) they illustrate reproductive diversity. Most of the species reside downtown within a walk from my home, and many occur in cities around the world. None is limited to Philadelphia or the Mid-Atlantic region. Roads, buildings, and other built structures fragment their habitat. Cited literature is global.

Compared to other forms of biodiversity, reproductive diversity is largely hidden, yet it rivals morphological diversity in beauty and scale. This book explores sex in the city as a pathway to appreciation of biodiversity. It presents many unanswered questions and hypotheses. I hope they inspire readers to seek answers.

Bisexual silver maple (*Acer saccharinum*).
Functionally male flowers (top right) are
blooming close to but separate from
functionally female flowers (bottom left).
The functionally female flowers have
nonfunctioning male parts (stamens).
(See page 35.)

