Record Nr. UNINA9910782978303321 Autore Silvertown Jonathan W Titolo Demons in Eden [[electronic resource]]: the paradox of plant diversity // Jonathan Silvertown Chicago,: University of Chicago Press, c2008 Pubbl/distr/stampa **ISBN** 0-226-75777-3 1-281-96650-9 9786611966508 Descrizione fisica 1 online resource (204 p.) AR 13540 Classificazione Disciplina 581.722 Soggetti Plant diversity Plant diversity conservation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references (p. [167]-179) and index. Nota di bibliografia Nota di contenuto Frontmatter -- Contents -- Preface -- 1. An Evolving Eden -- 2. The Tree of Trees -- 3. Succulent Isles -- 4. Demon Mountain -- 5. The Panama Paradox -- 6. Nix Nitch -- 7. Liebig's Revenge -- 8. Florida! --9. New Demons? -- 10. The End of Eden? -- 11. Fynbos Finale --Scientific Names of Plants Mentioned in the Text -- Sources and Further Reading -- Index Sommario/riassunto At the heart of evolution lies a bewildering paradox. Natural selection favors above all the individual that leaves the most offspring-a superorganism of sorts that Jonathan Silvertown here calls the "Darwinian demon." But if such a demon existed, this highly successful organism would populate the entire world with its own kind, beating out other species and eventually extinguishing biodiversity as we know it. Why then, if evolution favors this demon, is the world filled with so

many different life forms? What keeps this Darwinian demon in check? If humankind is now the greatest threat to biodiversity on the planet, have we become the Darwinian demon? Demons in Eden considers these questions using the latest scientific discoveries from the plant world. Readers join Silvertown as he explores the astonishing diversity of plant life in regions as spectacular as the verdant climes of Japan, the lush grounds of the Royal Botanical Gardens at Kew, the shallow

wetlands and teeming freshwaters of Florida, the tropical rainforests of southeast Mexico, and the Canary Islands archipelago, whose evolutionary novelties-and exotic plant life-have earned it the sobriquet "the Galapagos of botany." Along the way, Silvertown looks closely at the evolution of plant diversity in these locales and explains why such variety persists in light of ecological patterns and evolutionary processes. In novel and useful ways, he also investigates the current state of plant diversity on the planet to show the everchallenging threats posed by invasive species and humans. Bringing the secret life of plants into more colorful and vivid focus than ever before, Demons in Eden is an empathic and impassioned exploration of modern plant ecology that unlocks evolutionary mysteries of the natural world.