Record Nr. UNINA9910826479803321 Autore Pfennig David W (David William), <1955-> Titolo Evolution's wedge: competition and the origins of diversity / / David W. Pfennig, Karin S. Pfennig Berkeley:,: University of California Press,, [2012] Pubbl/distr/stampa **ISBN** 1-283-58414-X 0-520-95404-1 1 online resource (319 pages) Descrizione fisica Collana Organisms and environments;; no. 12 Classificazione WH 3000 Disciplina 577.8/3 Soggetti Divergence (Biology) Competition (Biology) Animal diversity Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Front matter -- Contents -- Preface -- 1. Discovery of a Unifying Principle -- 2. Why Character Displacement Occurs -- 3. When Character Displacement Occurs -- 4. How Character Displacement Unfolds -- 5. Diversity and Novelty Within Species -- 6. Ecological Consequences -- 7. Sexual Selection -- 8. Speciation -- 9. Macroevolution -- 10. Major Themes and Unsolved Problems --References -- Index Sommario/riassunto Evolutionary biology has long sought to explain how new traits and new species arise. Darwin maintained that competition is key to understanding this biodiversity and held that selection acting to minimize competition causes competitors to become increasingly different, thereby promoting new traits and new species. Despite Darwin's emphasis, competition's role in diversification remains controversial and largely underappreciated. In their synthetic and

provocative book, evolutionary ecologists David and Karin Pfennig explore competition's role in generating and maintaining biodiversity. The authors discuss how selection can lessen resource competition or costly reproductive interactions by promoting trait evolution through a process known as character displacement. They further describe character displacement's underlying genetic and developmental

mechanisms. The authors then consider character displacement's myriad downstream effects, ranging from shaping ecological communities to promoting new traits and new species and even fueling large-scale evolutionary trends. Drawing on numerous studies from natural populations, and written for a broad audience, Evolution's Wedge seeks to inspire future research into character displacement's many implications for ecology and evolution.