1. Record Nr. UNINA9910254094603321 Autore Shmailov Maya M Titolo Intellectual Pursuits of Nicolas Rashevsky [[electronic resource]]: The Queer Duck of Biology / / by Maya M. Shmailov Cham:,: Springer International Publishing:,: Imprint: Birkhäuser,, Pubbl/distr/stampa 2016 **ISBN** 3-319-39922-5 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (219 p.) Collana Science Networks. Historical Studies, , 1421-6329 ; ; 55 510 Disciplina Soggetti Mathematics History Biology—History **Biomathematics** History of Mathematical Sciences History of Biology History of Science Mathematical and Computational Biology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references. Preface -- Introduction -- Chapter I: An Overview: Rashevsky's Nota di contenuto Mathematical Biology -- A Brief Sketch of Rashevsky's Life -- Crossing Boundaries: When Interest Crystallizes -- Rashevsky's Mathematical Biologist -- 1st Arc of Intellectual Trajectory -- An Outsider's Sad Lot -- Chapter II: Chicago Experiments in Mathematical Biology -- In Search of a "Queer Duck" -- A Forward-Looking Policy in the Division of Biological Sciences -- The Scientific Pathfinder -- An Experiment in Scientific Procedure: the Cold Spring Harbor Symposia on Quantitative Biology -- The Queer Ducks: The University of Chicago Group of Mathematical Biologists -- Chapter III: Scientific Experiment: Attempts to Converse across Disciplinary Boundaries Using the Method of Approximation -- Cell division and cellular aggregates -- Growing up

> and Making a Name -- Making "an Honest Woman" of Mathematical Biology -- Chapter IV: Breaking through the Iron Curtain -- In search of the Holy Grail: Discovering Form and Relations in Biology -- Betting on

a Dark Horse -- A New Reign in Chicago -- Towards the Golden Years -- Chapter V: How Experiments End: The Drama at Chicago -- Pawns on a Chess Board -- "Mustard Plaster" -- The End -- Trotsky of Mathematical Biology -- Last of the Mohicans -- Conclusions -- Bibliography.

Sommario/riassunto

Who was Nicolas Rashevsky? To answer that question, this book draws on Rashevsky's unexplored personal archival papers and shares interviews with his family, students and friends, as well as discussions with biologists and mathematical biologists, to flesh out and complete the picture. "Most modern-day biologists have never heard of Rashevsky. Why?" In what constitutes the first detailed biography of theoretical physicist Nicolas Rashevsky (1899-1972), spanning key aspects of his long scientific career, the book captures Rashevsky's ways of thinking about the place mathematical biology should have in biology and his personal struggle for the acceptance of his views. It brings to light the tension between mathematicians, theoretical physicists and biologists when it comes to the introduction of physicomathematical tools into biology. Rashevsky's successes and failures in his efforts to establish mathematical biology as a subfield of biology provide an important test case for understanding the role of theory (in particular mathematics) in understanding the natural world. With the biological sciences moving towards new vistas of inter- and multidisciplinary collaborations and research programs, the book will appeal to a wide readership ranging from historians, sociologists, and ethnographers of American science and culture to students and general readers with an interest in the history of the life sciences, mathematical biology and the social construction of science.