Record Nr. UNINA9910786146903321 Autore Cavalli-Sforza L. L (Luigi Luca), <1922-> Titolo Consanguinity, inbreeding, and genetic drift in Italy [[electronic resource] /] / Luigi Luca Cavalli-Sforza, Antonio Moroni, and Gianna Zei Princeton, N.J.,: Princeton University Press, c2004 Pubbl/distr/stampa **ISBN** 1-299-05153-7 1-4008-4727-3 Edizione [Course Book] Descrizione fisica 1 online resource (329 p.) Collana Monographs in Population Biology;; 39 Altri autori (Persone) MoroniAntonio ZeiGianna Disciplina 304.6/0945 Soggetti Consanguinity - Italy Inbreeding - Italy Human population genetics - Italy Human genetics - Variation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references (p. [303]-311) and index. Nota di contenuto Front matter -- Contents -- Acknowledgments -- CHAPTER 1. History of This Investigation and Structure of This Book -- CHAPTER 2. Customs and Legislation Affecting Consanguineous Marriages, with Special Attention to the Catholic Church -- CHAPTER 3. Demographic Factors Affecting the Frequencies of Consanguineous Marriage-A Study in Northern Emilia -- CHAPTER 4. Probability of Consanguineous Marriages -- CHAPTER 5. Consanguinity, Inbreeding, and Observed Genetic Drift in the Parma Valley -- CHAPTER 6. A Computer Simulation of the Upper Parma Valley Population -- CHAPTER 7. Islands --CHAPTER 8. Effects of Inbreeding on Normal and Pathological Phenotypes -- CHAPTER 9. Consanguineous Marriages in Italy: Data from the Vatican Archives -- CHAPTER 10. Geography of Demes in Italy -- CHAPTER 11. Conclusions -- Bibliography -- Index -- Backmatter Sommario/riassunto In 1951, the geneticist Luigi Luca Cavalli-Sforza was teaching in Parma when a student--a priest named Antonio Moroni--told him about rich church records of demography and marriages between relatives. After convincing the Church to open its records, Cavalli-Sforza, Moroni, and

Gianna Zei embarked on a landmark study that would last fifty years

and cover all of Italy. This book assembles and analyzes the team's research for the first time. Using blood testing as well as church records, the team investigated the frequency of consanguineous marriages and its use for estimating inbreeding and studying the relations between inbreeding and drift. They tested the importance of random genetic drift by studying population structure through demography of the last three centuries, using it to predict the spatial variation of frequencies of genetic markers. The authors find that driftrelated genetic variation, including its stabilization by migration, is best predicted by computer simulation. They also analyze the usefulness and limits of the concept of deme for defining Mendelian populations. The genetic effect of consanguineous marriage on recessive genetic diseases and for the detection of dominance in metric characters are also studied. Ultimately bringing together the many strands of their massive project, Cavalli-Sforza, Moroni, and Zei are able to map genetic drift in all of Italy's approximately 8,000 communes and to demonstrate the relationship between each locality's drift and various ecological and demographic factors. In terms of both methods and findings, their accomplishment is tremendously important for understanding human social structure and the genetic effects of drift and inbreeding.