Record Nr. UNINA9910960274803321 Assessing the relationship between propagule pressure and invasion **Titolo** risk in ballast water / / National Research Council of the National Academies Washington, D.C., : National Academies Press, 2011 Pubbl/distr/stampa **ISBN** 9786613278791 9780309215657 030921565X 9781283278799 1283278790 9780309215633 0309215633 Edizione [1st ed.] Descrizione fisica 1 online resource (156 p.) 578.62 Disciplina Soggetti Ballast water - Research Ballast water - Environmental aspects - United States Introduced organisms - Environmental aspects - United States Marine biological invasions Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "Committee on Assessing Numeric Limits for Living Organisms in Note generali Ballast Water, Water Science and Technology Board, Division on Earth and Life Studies." Nota di bibliografia Includes bibliographical references. ""Front matter"": ""Preface""; ""Contents""; ""Summary""; ""1 Setting the Nota di contenuto Invasive Species Management Stage""; ""2 Policy Context for Regulating Live Organisms in Ballast Discharge""; ""3 Sources of Variation Influencing the Probability of Invasion and Establishment""; ""4 Relationship between Propagule Pressureand Establishment Risk""; ""5 Other Approaches to Setting a Ballast Water Discharge Standard""; ""6 The Path Forward""; ""Glossary""; ""Appendix A Committee Biographical Information"" Sommario/riassunto "The human-mediated introduction of species to regions of the world

they could never reach by natural means has had great impacts on the

environment, the economy, and society. In the ocean, these invasions have long been mediated by the uptake and subsequent release of ballast water in ocean-going vessels. Increasing world trade and a concomitantly growing global shipping fleet composed of larger and faster vessels, combined with a series of prominent ballast-mediated invasions over the past two decades, have prompted active national and international interest in ballast water management. Assessing the relationship between propagule pressure and invasion risk in ballast water informs the regulation of ballast water by helping the Environmental Protection Agency (EPA) and the U.S. Coast Guard (USCG) better understand the relationship between the concentration of living organisms in ballast water discharges and the probability of nonindigenous organisms successfully establishing populations in U.S. waters. The report evaluates the risk-release relationship in the context of differing environmental and ecological conditions, including estuarine and freshwater systems as well as the waters of the threemile territorial sea. It recommends how various approaches can be used by regulatory agencies to best inform risk management decisions on the allowable concentrations of living organisms in discharged ballast water in order to safeguard against the establishment of new aquatic nonindigenous species, and to protect and preserve existing indigenous populations of fish, shellfish, and wildlife and other beneficial uses of the nation's waters. Assessing the relationship between propagule pressure and invasion risk in ballast water provides valuable information that can be used by federal agencies, such as the EPA, policy makers, environmental scientists, and researchers."--Publisher's description.