



# Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly

Download now

Click here if your download doesn"t start automatically

## Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly

#### Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly

Monarch butterflies are among the most popular insect species in the world and are an icon for conservation groups and environmental education programs. Monarch caterpillars and adults are easily recognizable as welcome visitors to gardens in North America and beyond, and their spectacular migration in eastern North America (from breeding locations in Canada and the United States to overwintering sites in Mexico) has captured the imagination of the public.

Monarch migration, behavior, and chemical ecology have been studied for decades. Yet many aspects of monarch biology have come to light in only the past few years. These aspects include questions regarding large-scale trends in monarch population sizes, monarch interactions with pathogens and insect predators, and monarch molecular genetics and large-scale evolution. A growing number of current research findings build on the observations of citizen scientists, who monitor monarch migration, reproduction, survival, and disease. Monarchs face new threats from humans as they navigate a changing landscape marked by deforestation, pesticides, genetically modified crops, and a changing climate, all of which place the future of monarchs and their amazing migration in peril.

To meet the demand for a timely synthesis of monarch biology, conservation and outreach, *Monarchs in a Changing World* summarizes recent developments in scientific research, highlights challenges and responses to threats to monarch conservation, and showcases the many ways that monarchs are used in citizen science programs, outreach, and education. It examines issues pertaining to the eastern and western North American migratory populations, as well as to monarchs in South America, the Pacific and Caribbean Islands, and Europe. The target audience includes entomologists, population biologists, conservation policymakers, and K–12 teachers.

Contributors: Anurag A. Agrawal, Cornell University; Jared G. Ali, Michigan State University; Sonia Altizer, University of Georgia; Michael C. Anderson, Eden Prairie, Minnesota; Sophia M. Anderson, Eden Prairie, Minnesota; Kim Bailey, Georgia Department of Natural Resources; Rebecca Batalden, University of Minnesota; Kristen A. Baum, Oklahoma State University; Scott Hoffman Black, Xerces Society for Invertebrate Conservation; Brianna Borders, Xerces Society for Invertebrate Conservation; Lincoln P. Brower, Sweet Briar College; Wendy Caldwell, University of Minnesota; Mariana Cantú-Férnandez, Universidad Nacional Autónoma de México; Nicola Chamberlain, Harvard University; Sonya Charest, Montreal Insectarium; Andrew K. Davis, University of Georgia; Alma De Anda, Covina, California; Guadalupe del Rio Pesado, Alternare, A.C., Mexico; Janet Kudell-Ekstrum, USDA Forest Service; Linda S. Fink, Sweet Briar College; Mark Fishbein, Oklahoma State University; Juan Fernández-Haeger, University of Córdoba, Spain; Eligio García Serrano, Fondo Monarca, Mexico; Mark Garland, Cape May Monarch Monitoring Project; Brian Hayes, Monarch Teacher Network; Elizabeth Howard, Journey North; Mark D. Hunter, University of Michigan; Sarina Jepsen, Xerces Society for Invertebrate Conservation; Diego Jordano, University of Córdoba, Spain; Matthew C. Kaiser, University of Minnesota; Ridlon J. Kiphart, Texas Master Naturalists; Marcus R. Kronforst, University of Chicago; Jim Lovett, University of Kansas; Eric Lee-Mäder, Xerces Society for Invertebrate Conservation; Stephen B. Malcolm, Western Michigan University; Héctor Martínez-Torres, Universidad Nacional Autónoma de México; Susan Meyers, Stone Mountain Memorial Association; Erik A. Mollenhauer, Monarch Teacher Network; Mía Monroe, Xerces Society for Invertebrate Conservation; Eneida B. Montesinos-Patino, Monarch Butterfly Fund; Gail M.

Morris, Southwest Monarch Study; Elisha K. Mueller, Oklahoma State University; Kelly R. Nail, University of Minnesota; Karen S. Oberhauser, University of Minnesota; Diego R. Pérez-Salicrup, Universidad Nacional Autónoma de México; Amanda A. Pierce, Emory University; John Pleasants, Iowa State University; Victoria Pocius, University of Kansas; Robert Michael Pyle, Northwest Lepidoptera Survey; M. Isabel Ramírez, Universidad Nacional Autónoma de México; Sergio Rasmann, University of California, Irvine; Gerald Rehfeldt, USDA Forest Service; Eduardo Rendón-Salinas, World Wildlife Fund-Mexico; Leslie Ries, National Socio-Environmental Synthesis Center; Jacobus C. de Roode, Emory University; Richard G. RuBino, Florida State University; Ann Ryan, University of Kansas; Cuauhtémoc Sáenz-Romero, Universidad Michoacana de San Nicolás de Hidalgo; Lidia Salas-Canela, Universidad Nacional Autónoma de México; Phil Schappert, Biophilia Consulting; Priya C. Shahani, Oregon State University; Benjamin H. Slager, Western Michigan University; Michelle J. Solensky, University of Jamestown; Douglas J. Taron, Chicago Academy of Sciences/Peggy Notebaert Nature Museum; Orley R. Taylor, University of Kansas; Rocío Treviño, Protección de la Fauna Mexicana A.C.; Francis X. Villablanca, California Polytechnic State University; Dick Walton, New Jersey Audubon/Cape May Bird Observatory; Ernest H. Williams, Hamilton College; Elisabeth Young-Isebrand, University of Minnesota; Myron P. Zalucki, University of Queensland; Raúl R. Zubieta, Universidad Nacional Autónoma de México

**Download** Monarchs in a Changing World: Biology and Conserva ...pdf

Read Online Monarchs in a Changing World: Biology and Conser ...pdf

## Download and Read Free Online Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly

#### From reader reviews:

#### **Angela Heller:**

As people who live in often the modest era should be up-date about what going on or data even knowledge to make these keep up with the era which is always change and move forward. Some of you maybe will certainly update themselves by studying books. It is a good choice for you personally but the problems coming to anyone is you don't know which one you should start with. This Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly is our recommendation to cause you to keep up with the world. Why, because this book serves what you want and want in this era.

#### **David Lucero:**

The reason why? Because this Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly is an unordinary book that the inside of the guide waiting for you to snap this but latter it will shock you with the secret that inside. Reading this book adjacent to it was fantastic author who write the book in such awesome way makes the content on the inside easier to understand, entertaining approach but still convey the meaning fully. So , it is good for you for not hesitating having this any longer or you going to regret it. This unique book will give you a lot of rewards than the other book include such as help improving your expertise and your critical thinking way. So , still want to postpone having that book? If I ended up you I will go to the book store hurriedly.

#### **Alta Favors:**

Do you have something that you like such as book? The book lovers usually prefer to pick book like comic, brief story and the biggest an example may be novel. Now, why not attempting Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly that give your entertainment preference will be satisfied by means of reading this book. Reading addiction all over the world can be said as the means for people to know world better then how they react towards the world. It can't be said constantly that reading routine only for the geeky individual but for all of you who wants to possibly be success person. So, for all you who want to start reading through as your good habit, you may pick Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly become your starter.

#### Jesus Moreno:

Guide is one of source of expertise. We can add our expertise from it. Not only for students but in addition native or citizen require book to know the upgrade information of year to help year. As we know those guides have many advantages. Beside many of us add our knowledge, may also bring us to around the world. By the book Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly we can have more advantage. Don't you to be creative people? To get creative person must love to read a book. Simply choose the best book that suited with your aim. Don't end up being doubt to change your life at this time book Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly. You can more

attractive than now.

Download and Read Online Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly #B1TUS56LN9G

### Read Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly for online ebook

Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly books to read online.

## Online Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly ebook PDF download

Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly Doc

Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly Mobipocket

Monarchs in a Changing World: Biology and Conservation of an Iconic Butterfly EPub