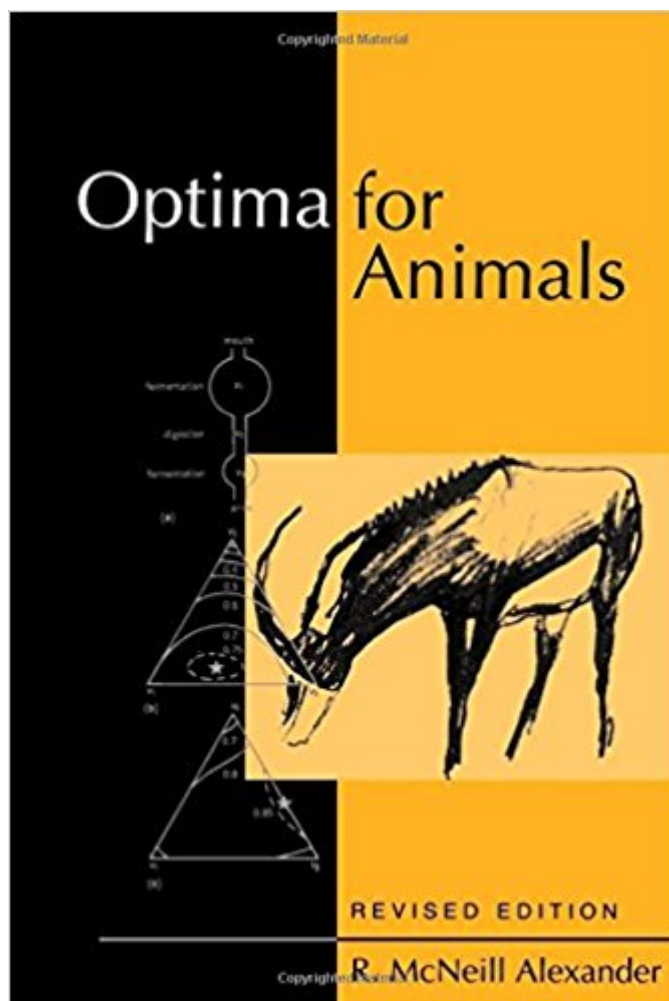


The book was found

Optima For Animals



Synopsis

Optimization theory is designed to find the best ways of doing things. The structures of animals, their movements, their behavior, and their life histories have all been shaped by the optimizing processes of evolution or of learning by trial and error. In this revised edition of R. McNeill Alexander's widely acclaimed *Optima for Animals*, we see how extraordinarily diverse branches of biology are illuminated by the powerful methods of optimization theory. What is the best strength for a bone? Too weak a bone will probably break but an excessively stout one will be cumbersome. At what speed should humans change from walking to running? Should a bird take only big juicy worms or should it eat every worm it finds, and do birds make the best choices? Why do the males of some species of fishes and the females of others look after the young, while the young of others are looked after by both parents or neither? Is it possible that all these policies can be optimal, in different circumstances? This book shows how these and many other questions can be answered. The mathematics involved is explained very simply, with biology students in mind, but the book is not just for them. It is also for professionals, ranging from teachers to researchers.

Book Information

Paperback: 176 pages

Publisher: Princeton University Press; Revised edition (November 11, 1996)

Language: English

ISBN-10: 0691027986

ISBN-13: 978-0691027982

Product Dimensions: 6 x 0.4 x 9 inches

Shipping Weight: 9.9 ounces (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars 2 customer reviews

Best Sellers Rank: #1,000,855 in Books (See Top 100 in Books) #42 in [Books > Science & Math > Mathematics > Applied > Biomathematics](#) #255 in [Books > Science & Math > Evolution > Organic](#) #840 in [Books > Textbooks > Science & Mathematics > Biology & Life Sciences > Zoology](#)

Customer Reviews

"This is a comprehensively revised edition, now taking in not only optimum structures and movements, but also the games theory of animal behaviour strategies and life styles. . . . It is in this breadth of its Darwinian perspective and the detail of its analysis and examples that the book's strength lies."--Journal of Biological Education

Optimization theory is designed to find the best ways of doing things. The structures of animals, their movements, their behavior, and their life histories have all been shaped by the optimizing processes of evolution or of learning by trial and error. In this revised edition of R. McNeill Alexander's widely acclaimed *Optima for Animals*, we see how extraordinarily diverse branches of biology are illuminated by the powerful methods of optimization theory. What is the best strength for a bone? Too weak a bone will probably break but an excessively stout one will be cumbersome. At what speed should humans change from walking to running? Should a bird take only big juicy worms or should it eat every worm it finds, and do birds make the best choices? Why do the males of some species of fishes and the females of others look after the young, while the young of others are looked after by both parents or neither? Is it possible that all these policies can be optimal, in different circumstances? This book shows how these and many other questions can be answered. The mathematics involved is explained very simply, with biology students in mind, but the book is not just for them. It is also for professionals, ranging from teachers to researchers. --This text refers to an out of print or unavailable edition of this title.

I am very happy :)

This book illustrates many interesting examples. The author collect them from many reports. You will know how to apply optimum methods to biology field. This book is practical and plain. If you have studied optimum technique,you will learn the application, from constructing objective function,defining design variables,to finding constraints. If you haven't, this book will offer a elementary course.

[Download to continue reading...](#)

Optima for Animals Animals, Animals, Animals! Mad Libs Junior FARTING ANIMALS COLORING BOOK (32 Fun Designs): Lion,Cat,Fox,Horse,Monkey,Dog,Pig,Bear,Tiger and other hilarious farting animals. Coloring is Fun (Animals Coloring Book) Book for kids: 30 Most Poisonous Animals in the World that You Should Know!: Incredible Facts & Photos to the Some of the Most Venomous Animals on Earth (Deadliest Animals) Book for kids: 30 Most Poisonous Animals in the World that You Should Know! : Incredible Facts & Photos to the Some of the Most Venomous Animals on Earth (Deadliest Animals 2) Wee Sing Animals, Animals, Animals "I'm Home!" a Cat's Never Ending Love Story: Pets Past Lives, Animal Reincarnation, Animal Communication, Animals Soul Contracts, Animals Afterlife & Animals Spirits Drawing Animals Shape by Shape: Create

Cartoon Animals with Circles, Squares, Rectangles & Triangles (Drawing Shape by Shape series)
Chibi Animals: A Cute Coloring Book with Adorable Cartoon Animals, Delightful Nature Scenes, and
Relaxing Patterns for Stress Relief Farting Animals Coloring Book: A Cute and Funny Coloring Book
(Diary of Farting Animals) (Volume 1) Swear Word Coloring Book For Adults : Cheeky Swear
Animals: 44 Designs Large 8.5" x 11"Big Pages Of Swearing Animals For Stress Relief And
Relaxation (Swear Word Coloring Books) (Volume 9) Saving Animals After Floods (Rescuing
Animals from Disasters) Saving Animals After Earthquakes (Rescuing Animals from Disasters)
"Free As A Bird" : Teach children to treat animals with respect. (ANIMALS STORY BEDTIME
BOOKS FOR KIDS Book 1) How Animals Say I Love You: (Children's book about How Animals
Express Their Love In Different Ways, Picture Books, Preschool Books, Ages 3-5, Baby Books,
Kids Book, Bedtime Story) Pink Is For Blobfish: Discovering the World's Perfectly Pink Animals (The
World of Weird Animals) Farting Pokemon Coloring Book: 25 Hilarious Coloring Pages of Farting
Pokemon: (Farting Animals Coloring Book, Farting Animals, Farting Pikachu) (Volume 1) Zoo
Animals for Kids: Amazing Pictures and Fun Fact Children Book: Discover Animals, Volume 3 2014
Calendar: Baby Animals: 12-Month Calendar Featuring Adorable Photographs of Baby Wild Animals
Talking to Animals: How You Can Understand Animals and They Can Understand You

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)