

OTHER

Ecology

By Michael L. Cain, William D. Bowman, and Sally D. Hacker. 2014. 3rd Edition. Sinauer Associates, Inc., Publishers, Sunderland, MA, USA, 01375-0407. 596 pages, 134.95 USD, Cloth.

The third edition to an already useful text contains some very important changes and improvements from the two earlier editions. The author's goal for this edition was to improve the usefulness of the text for both students and instructors and as with previous editions the focus in the undergraduate student. Aside from the text being updated, I will highlight the significant changes as well as provide a general overview of the text.

Ecology is composed of 25 chapters arranged into 7 Units to cover the complete depth of the field of ecology. The Units represent the scale and scope of ecology; individual, population, community, ecosystem, and global. In addition, there are units on the major ecological interactions of competition, predation, parasitism, and mutualism/commensalism, and evolutionary ecology. Natural selection forms the overlying basis for the entire text.

The content of this edition includes a new chapter on behavioural ecology which brings into focus the importance that behavior plays in populations and the structure of communities as well as interactions. It includes not only the ways that organisms live in aggregations but also foraging and mating behavior with the context always focused on the evolution of the behaviour as an important life history strategy to enhance fitness.

Several important features are worthy of note. First of all, the authors have included exercises that require analyzing data. This is not only an essential skill in ecology but also aids in developing critical thinking skills. The authors have continued to provide case studies of important concepts but have also added "Connections in Nature" which shows how chapter concepts

relate to the concepts in other chapters.

Pertinent to one of our greatest ecological challenges, this edition has a web feature "Climate Change Connections" which provides some useful material to relate ecological concepts to issues surrounding climate change. Most chapters have of this edition have examples relating to climate change.

An example of another new feature are the "Ecological Toolkit" boxes. These boxes highlight important techniques used by ecologists. Among the interesting ones are stable isotope analysis and estimation of population abundance and population growth rates.

The supplemental online content appears to be of high quality but at the time of review (05/2014) the publisher only has material for one chapter (4) available for examination. There appears no indication that this content will require a subscription although certainly this could change once the site is completed.

This edition has many other features that make it an improvement to an already good text. I would strongly recommend using this text if you are not already using the second edition and if you are, I recommend upgrading to this edition. If you want a personal text that can be used to facilitate self-learning of ecology or updating your ecological knowledge, this text is recommended. I can also recommend this edition as a reference if you wish to have an ecology text on your shelf. The addition of online content, especially if it remains free as noted above, enhances the value.

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