1. Record Nr. UNINA9910453439503321

Titolo	Australian freshwater ecology : processes and management / / Andrew J. Boulton [and five others]
Pubbl/distr/stampa	West Sussex, England : , : John Wiley & Sons, , 2014 ©2014
ISBN	1-118-56819-2
Edizione	[Second edition.]
Descrizione fisica	1 online resource (388 p.)
Disciplina	577.680994
Soggetti	Wetland ecology - Australia Freshwater ecology - Australia Wetland management - Australia Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title page; Copyright page; Contents; About this book; About the companion website; PART I: Processes in Aquatic Ecosystems; CHAPTER 1: Australian waters: diverse, variable and valuable; 1.1 The Challenge for Aquatic Ecologists; 1.2 Defining Some Common Terms; 1.3 Australian Inland Waters: Their Diversity and Distribution; 1.4 The Water Regime: 'Where, When and to What Extent Water is Present'; 1.4.1 Water budgets, scale issues and human influences on water regimes; 1.4.2 Components of the water regime; 1.4.3 Water regime variability 1.5 Linkages in Aquatic Ecosystems: from Molecular Bonds to Global Exchanges1.5.1 Wonderful water and its molecular linkages; 1.5.2 Linkages at the catchment scale; 1.5.3 Linkages at the global scale: the hydrological cycle; 1.5.4 Continental linkages and surface waters in Australia; 1.5.5 Continental linkages and groundwaters in Australia; 1.6 The Structure of This Book; CHAPTER 2: Physical processes in standing waters; 2.1 Depth and Physical Processes; 2.2 Let There Be Light ...; 2.2.1 Light reaching the water surface; 2.2.2 Light below the water surface 2.2.3 Seeing through water: Secchi discs and quantum sensors2.3 The Euphotic Zone; 2.4 Light and Life; 2.5 Temperature and Stratification;

2.5.1 Causes of stratification; 2.6 Using Circulation Patterns to Classify Standing Waters; 2.7 Ecological Implications of the Different Types of Stratification and Mixing; 2.8 Deep Versus Shallow Standing Waters: Depth Matters; 2.8.1 How deep standing waters form; 2.8.2 How shallow standing waters form; 2.9 Synthesis; CHAPTER 3: Chemical processes in standing waters; 3.1 'There's a Certain Chemistry ...'; 3.2 Dissolved Gases; 3.2.1 Oxygen
3.2.2 Carbon dioxide3.2.3 Hydrogen; 3.2.4 Methane; 3.3 Sources of Ions; 3.4 Ionic Composition of Australian Standing Waters; 3.5 Conductivity, Salinity and Total Dissolved Solids; 3.6 Ionic Composition and Trophic State; 3.6.1 Some common anions; 3.6.2 Some common cations; 3.7 Redox Reactions and Redox Potential; 3.8 Redox Reactions and Some Common Metals; 3.9 Nutrients, Nutrient Limitation and Ecological Stoichiometry; 3.9.1 Phosphorus; 3.9.2 Nitrogen; 3.9.3 Carbon; 3.10 Water Regime, Drying and Water Chemistry; 3.10.1 What happens to water chemistry during a wetting-drying cycle?
3.11 SynthesisCHAPTER 4: Biological processes in standing waters; 4.1 Biological Players on a Physical and Chemical Stage; 4.2 Major Ecological Zones and Habitats; 4.3 Blurred Boundaries and Mobile Assemblages; 4.4 Trophic Groups and Sources of Energy; 4.5 Producers; 4.5.1 An ecological classification of producers; 4.5.2 Microscopic aquatic plants; 4.5.3 Macroscopic aquatic plants; 4.5.4 Plants living in water: benefits and constraints; 4.5.5 Alternative states: changes in plant dominance in shallow waterbodies; 4.6 Consumers; 4.6.1 Decomposers: the importance of microbes and fungi
4.6.2 Invertebrate detritivores

Sommario/riassunto

As pressures on Australia's inland waters intensify from population growth, expanding resource development and climate change, there is an urgent need to manage and protect these special areas. Understanding their ecology underpins their wise management and conservation. Australian Freshwater Ecology vividly describes the physical, chemical and biological features of wetlands, lakes, streams, rivers and groundwaters in Australia. It presents the principles of aquatic ecology linked to practical management and conservation, and explains the causes, mechanisms, effects and manag

2. Record Nr. UNINA9910143125203321

Titolo	Journal of botany
Pubbl/distr/stampa	New York, : Hindawi Pub. Corp., 2009-
ISSN	2090-0139
Soggetti	Botany Plants Fulltext Internet Resources. Periodicals.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Periodico
Note generali	Refereed/Peer-reviewed