The Baobabs Pachycauls Of Africa Madagascar And Australia

#Baobab Trees #Pachycaul Plants #African Flora #Madagascar Baobabs #Australian Baobabs

Explore the fascinating world of Baobab trees, also known as pachycauls, which are native to Africa, Madagascar, and Australia. These iconic trees are renowned for their massive, bottle-shaped trunks, which are adaptations to survive in arid climates. Learn about the unique characteristics and the importance of these majestic trees to their respective ecosystems.

Each syllabus includes objectives, reading lists, and course assessments.

The Baobabs: Pachycauls of Africa, Madagascar and Australia

This is the only comprehensive account of all eight species in the genus Adansonia. It describes the historical background from the late Roman period to the present. It covers the extraordinary variety of economic uses of baobabs. There are also appendices on vernacular names, gazetteer, economics, nutrition and forest mensuration. This book fills a gap in the botanical literature. It deals with a genus that has fascinated and intrigued scientists and lay persons for centuries.

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Tropical Tree Physiology

This book presents the latest information on tropical tree physiology, making it a valuable research tool for a wide variety of researchers. It is also of general interest to ecologists (e.g. Ecological Society of America; > 3000 or 4000 members at annual meeting), physiologists (e.g. American Society of Plant Biologists; > 2,000 members at annual meeting), and tropical biologists (e.g. Association for Tropical Biology and Conservation, ATBC; > 500 members at annual meeting). (American Geophysical Union(AGU), > 20000 members at annual meeting). Since plant physiology is taught at every university that offers a life sciences, forestry or agricultural program, and physiology is a focus at research institutes and agencies worldwide, the book is a must-have for university and research institution libraries.

The African Baobab

The African Baobab is a revised and expanded edition of a book originally published in 2007. In this absorbing and inspired account of one of the continent's oldest botanical wonders, Rupert Watson explores the life and times of the majestic baobab, an ancient tree that has outlasted every plant and animal around it. The narrative effortlessly blends natural history and personal observation, while also drawing on extracts from the journals of early explorers. There are intriguing accounts of the baobab's eccentric growth and reproductive habits, its present-day distribution, and its wide impact on everyday African life. Watson also takes a close look at the relationship between humans and baobabs, and the tree's myriad uses over the ages, from shelters to medicinal and spiritual applications. This new edition is aimed at nature lovers, environmentalists, botanical enthusiasts, travellers and anyone intrigued by the wonders of plants and the natural world. Sales points: Uniquely African subject matter. Rich and compelling narrative by a master storyteller. Evocative, colourful photographs, including dozens of new images. Aligns with conservation zeitgeist.

Twelve Trees

A compelling global exploration of nature and survival as seen via a dozen species of trees that represent the challenges facing our planet, and the ways that scientists are working urgently to save our forests and our future. The world today is undergoing the most rapid environmental transformation in human history—from climate change to deforestation. Scientists, ethnobotanists, indigenous peoples, and collectives of all kinds are closely studying trees and their biology to understand how and why trees function individually and collectively in the ways they do. In Twelve Trees, Daniel Lewis, curator and historian at one of the world's most renowned research libraries, travels the world to learn about these trees in their habitats. Lewis takes us on a sweeping journey to plant breeding labs, botanical gardens, research facilities, deep inside museum collections, to the tops of tall trees, underwater, and around the Earth, journeying into the deserts of the American west and the deep jungles of Peru, to offer a globe-spanning perspective on the crucial impact trees have on our entire planet. When a once-common tree goes extinct in the wild but survives in a botanical garden, what happens next? How can scientists reconstruct lost genomes and habitats? How does a tree store thousands of gallons of water, or offer up perfectly preserved insects from millions of years ago, or root itself in muddy swamps and remain standing? How does a 5,000-year-old tree manage to live, and what can we learn from it? And how can science account for the survival of one species at the expense of others? To study the science of trees is to study not just the present, but the story of the world, its past, and its future. Note—species include: * The Lost Tree of Easter Island (Sophora toromiro) * The coast redwood (Sequoia sempervirens) * Hymenaea protera [a fossil tree] * The Longleaf pine (Pinus palustris) * East Indian sandalwood (Santanum album) * The Bristlecone pine (Pinus longaeva) * West African ebony (Diospyros crassiflora) * The Tasmanian blue gum eucalyptus (Eucalyptus globulus) * Olive tree (Olea europaea) * Baobab (Adansonia digitata) * the kapok tree (Ceiba pentandra) * The bald cypress (Taxodium distichum)

Tropical Plant Species and Technological Interventions for Improvement

This book provides a precise and meticulous overview of the production technologies involved in the cultivation of tropical plants. Technological advances have transformed the cultivation of fruit and ornamental plants from agronomic to value-added plants. The book highlights the essentials for developing tropical plants with increased nutritive, nutraceutical, and aesthetic value.

Ecological Sustainability for Non-timber Forest Products

There is growing knowledge about and appreciation of the importance of Non-timber Forest Products (NTFPs) to rural livelihoods in developing countries, and to a lesser extent, developed countries. However, there is also an assumption on the part of policy-makers that any harvesting of wild animal or plant products from the forests and other natural and modified ecosystems must be detrimental to the long-term viability of target populations and species. This book challenges this idea and shows that while examples of such negative impacts certainly exist, there are also many examples of sustainable harvesting systems for NTFPs. The chapters review and present coherent and scientifically sound information and case studies on the ecologically sustainable use of NTFPs. They also outline a general interdisciplinary approach for assessing the sustainability of NTFP harvesting systems at different scales. A wide range of case studies is included from Africa, Asia and South America, using plant and animal products for food, crafts, textiles, medicines and cosmetics.

Phytochemistry and Pharmacology of Medicinal Plants, 2-volume set

This 2-volume book set, Phytochemistry and Pharmacology of Medicinal Plants, introduces and provides extensive coverage of 79 important medicinal plant species. Each chapter, written by noted experts in the field, focuses on one important medicinal plant, giving a brief introduction about the species and then delving into the plant's bioactive phytochemicals along with its chemical structures and pharmacological activities. A wide array of biological activities and potential health benefits of the medicinal plant—which includes antiviral, antimicrobial, antioxidant, anti-cancer, anti-inflammatory and antidiabetic properties as well as protective effects on liver, kidney, heart and nervous system—are given. An extensive collection of research literature on pharmacological activities on that species is reviewed. This volume, published under the AAP Focus on Medicinal Plants book series, edited by the accomplished editor, T. Pullaiah, who has taught, researched, written, and published on medicinal plants for over 35 years, will be an important reference resource for years to come for both new and experienced medicinal researchers.

In the Name of Plants

A vividly illustrated meeting with thirty plants and their inspiring namesakes Shakespeare famously asserted that "a rose by any other name would smell as sweet," and that's as true for common garden roses as it is for the Megacorax, a genus of evening primroses. Though it may not sound like it, the Megacorax was actually christened in honor of famed American botanist Peter Raven, its name a play on the Latin words for "great raven." In this lush and lively book, celebrated botanist Sandra Knapp explores the people whose names have been immortalized in plant genera, presenting little-known stories about both the featured plants and their eponyms alongside photographs and botanical drawings from the collections of London's Natural History Museum. Readers will see familiar plants in a new light after learning the tales of heroism, inspiration, and notoriety that led to their naming. Take, for example, nineteenth-century American botanist Alice Eastwood, after whom the yellow aster—Eastwoodia elegans—is named. Eastwood was a pioneering plant collector who also singlehandedly saved irreplaceable specimens from the California Academy of Sciences during the 1906 San Francisco earthquake. Or more recently, the fern genus Gaga, named for the pop star and actress Lady Gaga, whose verdant heart-shaped ensemble at the 2010 Grammy Awards bore a striking resemblance to a giant fern gametophyte. Knapp's subjects range from Charles Darwin's grandfather, Erasmus Darwin (Darwinia), and legendary French botanist Pierre Magnol—who lends his name to the magnolia tree—to US founding figures like George Washington (Washingtonia) and Benjamin Franklin (Franklinia). Including granular details on the taxonomy and habitats for thirty plants alongside its vibrant illustrations, this book is sure to entertain and enlighten any plant fan.

Mycotoxin and Food Safety in Developing Countries

This book provides information on the incidence of fungi and mycotoxins in some African countries, the health implications and possible intervention control strategies for mycotoxins in developing countries and in Africa in particular. It will therefore be of interest to students, educators, researchers and policy makers in the fields of medicine, agriculture, food science and technology, trade and economics. Food regulatory officers also have quite a lot to learn from the book. Although a lot of the generated data in the area of mycotoxicology are available to the developed world, information on the subject area from Africa is scanty and not usually available in a comprehensive form. This book attempts to address the

gap. Being an open access book, it will be of great benefit to scientists in developing countries who have limited access to information due to lack of funds to pay or subscribe for high quality journals and data from commercial publishing and database companies.

Moving Spaces

Moving Spaces: Creolisation and Mobility in Africa, the Atlantic and Indian Ocean brings new perspectives on issues of creolisation, mobility, and migration of ideas, songs, stories, people, and plants, in parts of Africa, the Atlantic and the Indian Ocean worlds.

Curative and Preventive Properties of Medicinal Plants

This book provides scientific reports on the therapeutic potential of medicinal plants using animal models and provides information on the beneficial role of medicinal plants on human diseases. It looks at a number of medicinal plants and examines the medicinal properties and activities of the plants for a variety of health issues, such as for diabetes, cardiovascular disease, neurodegenerative disease, organ dysfunctions, cancer, labor and postpartum issues, and more. The therapeutic mechanisms of some phytoconstituents are also discussed.

Plant Gum Exudates of the World

Plant Gum Exudates of the World: Sources, Distributions, Properties, and Applications is the most extensive collection of plant gum exudates in print, containing information on both well-established exudates and newer ones. It not only introduces an array of exudates never before described or reviewed, but also classifies gums according to their botanical taxonomy. This readily accessible book also supplies color plates of exudates in their natural environment along with relevant botanical parts. Each entry includes: Botanical name Common and vernacular gum names Geographical distribution information Appearance and color descriptions Water solubility information Chemical characteristics Structural features Physical and physicochemical properties Commercial availability Industrial and food applications Synonyms of and uses for the producing tree or shrub

Plants and People in the African Past

There is an essential connection between humans and plants, cultures and environments, and this is especially evident looking at the long history of the African continent. This book, comprising current research in archaeobotany on Africa, elucidates human adaptation and innovation with respect to the exploitation of plant resources. In the long-term perspective climatic changes of the environment as well as human impact have posed constant challenges to the interaction between peoples and the plants growing in different countries and latitudes. This book provides an insight into/overview of the manifold routes people have taken in various parts Africa in order to make a decent living from the provisions of their environment by bringing together the analyses of macroscopic and microscopic plant remains with ethnographic, botanical, geographical and linguistic research. The numerous chapters cover almost all the continent countries, and were prepared by most of the scholars who study African archaeobotany, i.e. the complex and composite history of plant uses and environmental transformations during the Holocene.

Memory in Place

Memory in Place brings together Indigenous and non-Indigenous scholars and practitioners grappling with the continued potency of memories and experiences of colonialism. While many of these conversations have taken place on a national stage, this collection returns to the rich intimacy of the local. From Queensland’s sweeping Gulf Country, along the shelly beaches of south Sydney, Melbourne’s city gardens and the rugged hills of South Australia, through Central Australia’s dusty heart and up to the majestic Kimberley, the collection charts how interactions between Indigenous people, settlers and their descendants are both remembered and forgotten in social, political, and cultural spaces. It offers uniquely diverse perspectives from a range of disciplines including history, anthropology, memory studies, archaeology, and linguistics from both established and emerging scholars; from Indigenous and non-Indigenous contributors; and from academics as well as museum and cultural heritage practitioners. The collection locates some of the nation’s most pressing political issues with attention to the local, and the ethics of commemoration and relationships needed at this scale. It will be of interest to those who see the past as intimately connected to the future.

Baobab

Modern humans, descendants of a founding population that separated from chimpanzees some five to eight million years ago, are today the only living representative of a branching group of African apes called hominins. Because of its extraordinary size and shape, the baobab (Adansonia digitata L.) has long been identified as the most striking tree of Africa's mosaic savanna, the landscape generally regarded as the environment of hominin evolution. This book makes the case for identifying the baobab as the tree of life in the hunter-gatherer adaptation that was the economic foundation of hominin evolution. The argument is based on the significance of the baobab as a resource-rich environment for the Hadza of northeastern Tanzania, who continue to be successful hunter-gatherers of the African savanna.

Ethnobiology

The single comprehensive treatment of the field, from the leading members of the Society of Ethnobiology The field of ethnobiology—the study of relationships between particular ethnic groups and their native plants and animals—has grown very rapidly in recent years, spawning numerous subfields. Ethnobiological research has produced a wide range of medicines, natural products, and new crops, as well as striking insights into human cognition, language, and environmental management behavior from prehistory to the present. This is the single authoritative source on ethnobiology, covering all aspects of the field as it is currently defined. Featuring contributions from experienced scholars and sanctioned by the Society of Ethnobiology, this concise, readable volume provides extensive coverage of ethical issues and practices as well as archaeological, ethnological, and linguistic approaches. Emphasizing basic principles and methodology, this unique textbook offers a balanced treatment of all the major subfields within ethnobiology, allowing students to begin guided research in any related area—from archaeoethnozoology to ethnomycology to agroecology. Each chapter includes a basic introduction to each topic, is written by a leading specialist in the specific area addressed, and comes with a full bibliography citing major works in the area. All chapters cover recent research, and many are new in approach; most chapters present unpublished or very recently published new research. Featured are clear, distinctive treatments of areas such as ethnozoology, linguistic ethnobiology, traditional education, ethnoecology, and indigenous perspectives. Methodology and ethical action are also covered up to current practice. Ethnobiology is a specialized textbook for advanced undergraduates and graduate students; it is suitable for advanced-level ethnobotany, ethnobiology, cultural and political ecology, and archaeologically related courses. Research institutes will also find this work valuable, as will any reader with an interest in ethnobiological fields.

Between Earth and Sky

World-renowned canopy biologist Nalini Nadkarni has climbed trees on four continents with scientists, students, artists, clergymen, musicians, activists, loggers, legislators, and Inuits, gathering diverse perspectives. In Between Earth and Sky, a rich tapestry of personal stories, information, art, and photography, she becomes our captivating guide to the leafy wilderness above our heads. Through her luminous narrative, we embark on a multifaceted exploration of trees that illuminates the profound connections we have with them, the dazzling array of goods and services they provide, and the powerful lessons they hold for us. Nadkarni describes trees' intricate root systems, their highly evolved and still not completely understood canopies, their role in commerce and medicine, their existence in city centers and in extreme habitats of mountaintops and deserts, and their important place in folklore and the arts. She explains tree fundamentals and considers the symbolic role they have assumed in culture and religion. In a book that reawakens our sense of wonder at the fascinating world of trees, we ultimately find entry to the entire natural world and rediscover our own place in it.

Ginkgo

DIVPerhaps the world's most distinctive tree, ginkgo has remained stubbornly unchanged for more than two hundred million years. A living link to the age of dinosaurs, it survived the great ice ages as a relic in China, but it earned its reprieve when people first found it useful about a thousand years ago. Today ginkgo is beloved for the elegance of its leaves, prized for its edible nuts, and revered for its longevity. This engaging book tells the full and fascinating story of a tree that people saved from extinction—a story that offers hope for other botanical biographies that are still being written./divDIV /divDIVInspired by the historic ginkgo that has thrived in London's Kew Gardens since the 1760s, renowned botanist Peter Crane explores the evolutionary history of the species from its mysterious origin through its proliferation, drastic decline, and ultimate resurgence. Crane also highlights the cultural and social

significance of the ginkgo: its medicinal and nutritional uses, its power as a source of artistic and religious inspiration, and its importance as one of the world’s most popular street trees. Readers of this extraordinarily interesting book will be drawn to the nearest ginkgo, where they can experience firsthand the timeless beauty of the oldest tree on Earth./div

Right Where We Belong

A leading expert shows how, by learning from refugee teachers and students, we can create for displaced childrenÑand indeed all childrenÑbetter schooling and brighter futures. Half of the worldÕs 26 million refugees are children. Their formal education is disrupted, and their lives are too often dominated by exclusion and uncertainty about what the future holds. Even kids who have the opportunity to attend school face enormous challenges, as they struggle to integrate into unfamiliar societies and educational environments. In Right Where We Belong, Sarah Dryden-Peterson discovers that, where governments and international agencies have been stymied, refugee teachers and students themselves are leading. From open-air classrooms in Uganda to the hallways of high schools in Maine, new visions for refugee education are emerging. Dryden-Peterson introduces us to people like JacquesÑa teacher who created a school for his fellow Congolese refugees in defiance of local lawsÑand Hassan, a Somali refugee navigating the social world of the American teenager. Drawing on more than 600 interviews in twenty-three countries, Dryden-Peterson shows how teachers and students are experimenting with flexible forms of learning. Rather than adopt the unrealistic notion that all will soon return to Ònormal,Ó these schools embrace unfamiliarity, develop studentsÕ adaptiveness, and demonstrate how children, teachers, and community members can build supportive relationships across lines of difference. It turns out that policymakers, activists, and educators have a lot to learn from displaced children and teachers. Their stories point the way to better futures for refugee students and inspire us to reimagine education broadly, so that children everywhere are better prepared to thrive in a diverse and unpredictable world.

Applied Tree Biology

Many arborists learn tree work practices without fully understanding the biological and physiological principles behind them. However, outcomes for the health and longevity of trees are greatly improved when an arborist understands the science behind the care of tree root systems and crowns. In Applied Tree Biology, Drs. Hirons and Thomas draw upon their decades of experience in the laboratory, classroom, and the field – as well as the expertise of distinguished contributors to this volume – to provide those responsible for tree care with the scientific information that informs best practices for planting, pruning, soil decompaction, irrigation, and much more. Takes a multidisciplinary approach, integrating knowledge from plant biology, physiology, arboriculture, ecology, and more Provides a systematic presentation of fundamental tree biology and the scientific principles informing high quality tree care Presents accessible scientific information and best practices that help promote the health and longevity of trees Reflects the authors’ decades of experience as tree biology researchers and educators, as well as their years of professional experience across the globe Applied Tree Biology is an indispensable source of practical, succinct information on tree biology, physiology, and ecology for professionals and interested amateurs involved with the care of trees. Arborists, foresters, and horticulturists at all stages of their careers will find this text particularly useful.

The Remarkable Baobab

Acclaimed historian Thomas Pakenham-who has dramatized in photographs and words the sheer majesty of trees throughout the world-now trains his lens on the most mysterious of trees, the baobab, with spectacular results. His search for the world's most striking baobabs has led him over the last eight years on a trail from sub-Saharan Africa to Madagascar and Australia, the Caribbean, and the United States. Here, in The Remarkable Baobab, Pakenham records his personal encounters with these mysterious giants, tracing their mythologies, their natural grandeur, and their origins, as well as their chances of survival in an uncertain environment. As Pakenham notes, the baobab may indeed be one of the oldest life forms on the planet, and many of the specimens still standing today have been alive for well over a thousand years. Standing tall on the savannahs of Africa and the sunburned plains of Australia, they are tremendous in size and have provided food, medicine, and places of refuge and worship to many, even serving as prisons, tombs, and ossuaries on occasion. Over the last one thousand years they have gained mythical status among many peoples, due in no small part to their appearance-without leaves, the branches of the trees look like roots growing into the sky.

The Remarkable Baobab also includes a special section devoted to two famous baobabs in North America-one which is now over twenty feet in girth and is planted on a private Florida estate, the other a breathtaking specimen on the campus of the University of Arizona that was brought to the United States by smugglers. These stories are but two examples provided by Thomas Pakenham in The Remarkable Baobab, a book that is as visually bewitching as the baobab itself. Book jacket.

The New Natural History of Madagascar

A marvelously illustrated reference to the natural wonders of one of the most spectacular places on earth Separated from Africa's mainland for tens of millions of years, Madagascar has evolved a breathtaking wealth of biodiversity, becoming home to thousands of species found nowhere else on the planet. The New Natural History of Madagascar provides the most comprehensive, up-to-date synthesis available of this island nation's priceless biological treasures. Now fully revised and expanded, this beautifully illustrated compendium features contributions by more than 600 globally renowned experts who cover the history of scientific exploration in Madagascar, as well as the island's geology and soils, climate, forest ecology, human ecology, marine and coastal ecosystems, plants, invertebrates, fishes, amphibians, reptiles, birds, and mammals. This invaluable two-volume reference also includes detailed discussions of conservation efforts in Madagascar that showcase several successful protected area programs that can serve as models for threatened ecosystems throughout the world. Provides the most comprehensive overview of Madagascar's rich natural history Coedited by 18 different specialists Features hundreds of new contributions by world-class experts Includes hundreds of new illustrations Covers a broad array of topics, from geology and climate to animals, plants, and marine life Sheds light on newly discovered species and draws on the latest science An essential resource for anyone interested in Madagascar or tropical ecosystems in general, from biologists and conservationists to ecotourists and armchair naturalists

Adaptation to Climate Change through Water Resources Management

The impacts of human-induced climate change are largely mediated by water, such as alterations in precipitation and glacial melt patterns, variations in river flow, increased occurrence of droughts and floods, and sea level rise in densely populated coastal areas. Such phenomena impact both urban and rural communities in developed, emerging, and developing countries. Taking a systems approach, this book analyzes evidence from 26 countries and identifies common barriers and bridges for local adaptation to climate change through water resources management. It includes a global set of case studies from places experiencing increased environmental and social pressure due to population growth, development and migration, including in Africa, Asia, Australia, Europe, North and South America. All chapters consider the crosscutting themes of adaptive capacity, equity, and sustainability. These point to resilient water allocation policies and practices that are capable of protecting social and environmental interests, whilst ensuring the efficient use of an often-scarce resource.

Edible Medicinal and Non-Medicinal Plants

This multi-compendium is a comprehensive, illustrated and scientifically up-to-date work covering more than a thousand species of edible medicinal and non-medicinal plants. This work will be of significant interest to scientists, researchers, medical practitioners, pharmacologists, ethnobotanists, horticulturists, food nutritionists, agriculturists, botanists, herbalogists, conservationists, teachers, lecturers, students and the general public. Topics covered include: taxonomy (botanical name and synonyms); common English and vernacular names; origin and distribution; agro-ecological requirements; edible plant part and uses; botany; nutritive and medicinal/pharmacological properties, medicinal uses and current research findings; non-edible uses; and selected/cited references. Each volume covers about a hundred species arranged according to families and species. Each volume has separate scientific and common names indices and separate scientific and medical glossaries.

The Boab Tree

Describes the biology, distribution and human associations of the baob tree. Discusses Aboriginal peoples use of the boab tree and stories associated with it, as well as European explorers' encounters with these trees. The author has written several books about the traditional life in the Great Sandy Desert. Includes a map showing the distribution of the eight boab species, a bibliography and an index.

Governance for Justice and Environmental Sustainability

Understanding the governance of complex social-ecological systems is vital in a world faced with rapid environmental change, conflicts over dwindling natural resources, stark disparities between rich and poor and the crises of sustainability. Improved understanding is also essential to promote governance approaches that are underpinned by justice and equity principles and that aim to reduce inequality and benefit the most marginalised sectors of society. This book is concerned with enhancing the understanding of governance in relation to social justice and environmental sustainability across a range of natural resource sectors in Sub-Saharan Africa. By examining governance across various sectors, it reveals the main drivers that influence the nature of governance, the principles and norms that shape it, as well as the factors that constrain or enable achievement of justice and sustainability outcomes. The book also illuminates the complex relationships that exist between various governance actors at different scales, and the reality and challenge of plural legal systems in much of Sub-Saharan Africa. The book comprises 16 chapters, 12 of them case studies recounting experiences in the forest, wildlife, fisheries, conservation, mining and water sectors of diverse countries: Madagascar, Zimbabwe, Botswana, Namibia, South Africa, Zambia, Mozambique, Sierra Leone and Cameroon.Through insights from these studies, the book seeks to draw lessons from the praxis of natural resource governance in Sub-Saharan Africa and to contribute to debates on how governance can be strengthened and best configured to meet the needs of the poor, in a way that is both socially just and ecologically sustainable.

Bradleya

This volume is the outcome of an international cooperation between 73 scientists, experts, and practitioners from many countries, disciplines, and professional areas. As a part of a series of CERES publications, the volume attempts to contribute to the scientific debate about the food–biodiversity–climate nexus by developing a comprehensive region-specific and broader global understanding of the linkages between these areas, especially in the context of Global South. Instead of providing only modern science-based solutions for the nexus related challenges, the volume covers case studies that present mixed solutions, offering the use of traditional ecological knowledge in combination with modern science for both resilience and sustainability. This is increasingly instrumental in shaping the needed response options regarding the economic, social, and environmental future of the world. Based on a multi-regional and cross-sectoral analysis, the approach consists of: assessing the different natural and anthropogenic factors currently affecting ecosystems and their services, especially the impacts of climate change; highlighting the different linkages between the state of biodiversity and food systems in many contexts and scales; and exploring the various response mechanisms to effectively manage the implications of such linkages. Most chapters provide inputs for future relevant research and policy agendas.

The Food Security, Biodiversity, and Climate Nexus

The continent of Africa has played an important and independent role in the history of plant exploitation. The International Workshop on African Archaeobotany (IWAA) provides a meeting for archaeobotanists and specialists on African languages to enhance the archaeobotanical research in the African continent. The proceedings of these workshops have provided us with a major insight into the vegetation development and plant exploitation in Africa. Papers presented at earlier workshops have been published by Stuchlik & Wasylikowa (1995), Van der Veen (1999) and Neumann et al. (2003).This book presents papers presented at the 4th International Workshop on African Archaeobotany, held in Groningen from 30th of June until the 2nd of July 2003. Several papers deal with the domestication history and related aspects of specific plants, including wheat (Triticum), rice (Oryza), pearl millet (Pennisetum glaucum), fig (Ficus), cotton (Gossypium), silk-cotton (Ceiba pentandra) and baobab (Adansonia digitata). Other contributions discuss the exploitation of woody vegetations, members of the sedge family (Cyperaceae) and the botanical composition of mummy garlands. Three papers present the subfossil plant remains from Egyptian sites: Pharaonic caravanserais along theTheban Desert Road, Predynastic Adaima and Napatan to Islamic Qasr Ibrim. The last contribution presents an update inventory of the ancient plant remains present in the Agricultural Museum (Dokki, Cairo). The book covers a wide range of countries and includes Namibia, Burkina Faso, Mali, Senegal, Mauritania, Canary Isles, Libya and Egypt.

Fields of Change

Thousands of consumer products around the world contain ingredients obtained from wild plants. Wild harvest accounts for some or all the harvest of the great majority of plant species in trade (between 60-90 percent). Wild-harvested plants often come from the most biodiverse ecosystems on earth and many have been used traditionally or by local communities for generations. While these products have global markets and provide critical sources of income, they can also have deep ties to particular cultures and places. Demand for wild plant ingredients is growing rapidly, having grown by over 75 percent in value over the past two decades. Thousands of harvested species are at risk mainly from a combination of overharvest and habitat loss: of the 21 percent of medicinal and aromatic plant species whose threat status has been assessed, 9 percent are considered threatened with extinction. Despite their ubiquity, importance, and the threats facing them, wild plant ingredients are often obscured from consumers and escape companies' due diligence due to a lack of awareness and traceability. Best practice standards exist but have yet to capture a significant portion of the market. This report aims to address these challenges by making information on a selection of 'flagship' wild plant ingredients, the Wild Dozen, readily available and easy to understand. By offering this information without obligation to a specific prescription for follow-up action (e.g. through certification or policy change), it is hoped that a wide range of users will access the report as a first step towards responsible sourcing. Along with a broader update on the state of wild plants trade, the report provides a 'profile' on each of the Wild Dozen species, summarising key facts on production and trade. Each profile contains a traffic-light risk rating on biological and social factors, along with an overview of opportunities for responsible sourcing. The information is aimed at industry, consumers, policy-makers, investors, and practitioners, concluding with a summary of what these various stakeholders can do to contribute to a sectoral shift towards responsible sourcing of wild plant ingredients.

Wildcheck – Assessing the risks and opportunities of trade in wild plant ingredients

A magazine of colour plates with descriptions of flowering plants of Africa and neighboring islands.

The Flowering Plants of Africa

The South African Herbal Pharmacopeia: Monographs of Medicinal and Aromatic Plants is a collection of 25 original monographs of medicinal plants that are currently under commercialization or have the potential for commercialization into herbal medicinal products for the global marketplace. Chapters include a general overview covering synonyms, common names, conservation status, botany, geographical distribution, ethnopharmacology, commercialization, pharmacological evaluation, chemical profiling and quality control, including HPTLC fingerprint analysis, UPLC analysis, gas chromatography and mid-infrared spectroscopy analysis. Academics researching pharmacy and analytical chemistry will benefit from the detailed chemical profile on each species presented. Industrial manufacturers of herbal products, herbal medicines, cosmetics, food supplements, and national and international policymakers and regulators will benefit from the overview provided at the beginning of each chapter. Provides a comprehensive, up-to-date literature review on 25 medicinal plants of South Africa Documents quality control protocols for chemical fingerprinting and biomarker identification in plant material Includes updated safety profiles of medicinal plants

Baobab, Adansonia Digitata L.

Phytochemical Profiling of Commercially Important South African Plants comprises a carefully selected group of plant species that are of interest to researchers and industry partners who would like to investigate the commercialization of plant species. The book presents 25 botanicals selected based on commercial relevance. For each of the species, the following topics are covered: botanical description and distribution, phytochemistry (including chemical structures), HPTLC fingerprint analysis, UPLC analysis, and GC analysis (the latter only in the case of essential oil-bearing species). Using standard methodology, high-level chromatographic fingerprints have been developed for better understanding. Different methods are succinctly summarized allowing for the rapid identification of botanical raw materials and formulated consumer products. This book will be extremely valuable to researchers in the field who wish to rapidly identify the constituents and for those who want to prepare formulations of plant material for commercial applications. This work will also be a valuable resource in the field of pharmacognosy. Comprehensive chemical profiling of each species Fingerprints developed for non-volatile and volatile constituents Methods succinctly summarized to ensure reproducibility

The South African Herbal Pharmacopoeia

Winner of the Jacques Barzun Prize in Cultural History Combining rigorous research with lyrical writing, Elderflora chronicles the complex roles ancient trees have played in the modern world and illuminates how we might need old trees now more than ever. Humans have always revered long-lived trees. But as historian Jared Farmer reveals in Elderflora, our respect took a modern turn in the eighteenth century when naturalists embarked on a quest to locate and precisely date the oldest living things on earth. The new science of tree time prompted travellers to visit ancient specimens and conservationists to protect sacred groves. Exploitation accompanied sanctification, as old-growth forests succumbed to imperial expansion and the industrial revolution. Taking us from Lebanon to New Zealand to California, Farmer surveys the complex history of the world's oldest trees, including voices of Indigenous peoples, religious figures, and contemporary scientists who study elderflora in crisis. In a changing climate, a long future is still possible, Farmer shows, but only if we give care to young things that might grow old. 'A magisterial study of arboreal longevity . . . like the outstretched limbs of a luxuriant elm, Farmer's narrative extends over a broad range of social and scientific issues.' – Natural History

Phytochemical Profiling of Commercially Important South African Plants

In Children of the Soil, Tasha Rijke-Epstein offers an urban history of the port city of Mahajanga, Madagascar, before, during, and after colonization. Drawing on archival and ethnographic evidence, she weaves together the lives and afterlives of built spaces to show how city residents negotiated imperial encroachment, colonial rule, and global racial capitalism over two centuries. From Mahajanga's hilltop palace to the alluvial depths of its cesspools, the city's spaces were domains for ideological debates between rulers and subjects, French colonizers and indigenous Malagasy peoples, and Comorian migrants and Indian traders. In these spaces, Mahajanga's residents expressed competing moral theories about power over people and the land. The built world was also where varying populations reckoned with human, ancestral, and ecological pasts and laid present and future claims to urban belonging. Migrants from nearby Comoros harnessed built forms as anticipatory devices through which they sought to build their presence into the landscape and transform themselves from outsiders into "children of the soil" (zanatany). In tracing the centrality of Mahajanga's architecture to everyday life, Rijke-Epstein offers new ways to understand the relationships between the material world, the more-than-human realm, and the making of urban life.

Choice

This extensive Handbook addresses a range of contemporary issues related to Prison Tourism across the world. It is divided into seven sections: Ethics, Human Rights and Penal Spectatorship; Carceral Retasking, Curation and Commodification of Punishment; Meanings of Prison Life and Representations of Punishment in Tourism Sites; Death and Torture in Prison Museums; Colonialism, Relics of Empire and Prison Museums; Tourism and Operational Prisons; and Visitor Consumption and Experiences of Prison Tourism. The Handbook explores global debates within the field of Prison Tourism inquiry; spanning a diverse range of topics from political imprisonment and persecution in Taiwan to interpretive programming in Alcatraz, and the representation of incarcerated Indigenous peoples to prison graffiti. This Handbook is the first to present a thorough examination of Prison Tourism that is truly global in scope. With contributions from both well-renowned scholars and up-and-coming researchers in the field, from a wide variety of disciplines, the Handbook comprises an international collection at the cutting edge of Prison Tourism studies. Students and teachers from disciplines ranging from Criminology to Cultural Studies will find the text invaluable as the definitive work in the field of Prison Tourism.

Elderflora

This book critically examines contemporary health and wellness culture through the lens of personalization, genetification and functional foods. These developments have had a significant impact on the intersecting categories of gender, race, and class in light of the increasing adoption of digital health and surveillance technologies like MyFitnessPal, Lifesum, HealthyifyMe, and Fooducate. These three vectors of identity, when analysed in relation to food, diet, health, and technology, reveal significant new ways in which inequality, hierarchy, and injustice become manifest. In the book, Tina Sikka argues that the corporate-led trends associated with health apps, genetic testing, superfoods, and functional foods have produced a kind of dietary-genomic-functional food industrial complex. She makes the positive case for a prosocial, food secure, and biodiverse health and food culture that is rooted in community action, supported by strong public provisioning of health care, and grounded in principles of food justice and sovereignty.

Children of the Soil