

ant plant interactions pdf

PDF | A framework for the analysis of ant-plant interactions has been provided by Hocking (1975) and Gilbert (1979), who grouped insect-plant interactions into 7 main categories according to the ...

(PDF) Ant-Plant Interactions in Australia - ResearchGate

Abstract Protective ant-plant interactions, important in both temperate and tropical communities, are increasingly used to study a wide range of phenomena of general interest.

(PDF) Protective Ant-plant Interactions as Model Systems

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Obligate mutualisms between ants and plants are seen in myrmecophytes providing a limited number of plant-ant species with a nesting place in the form of hollow structures

Highly modular pattern in ant-plant interactions involving

The Ecology and Evolution of Ant-Plant Interactions brings jointly findings from the medical literature at the coevolution of ants and vegetation to supply a greater knowing of the unheard of good fortune of those extraordinary teams, of interspecific interactions ordinarily, and eventually of terrestrial organic communities.

Get The Ecology and Evolution of Ant-Plant Interactions PDF

We demonstrated earlier that obligate ant partners can protect their *Macaranga* plants against herbivore damage and vine cover. In this study we focused on nonspecific interactions and studied *M. tanarius* and *M. hosei*, representing a non-myrmecophyte and a transitional species respectively.

Diversity of ant-plant interactions: protective efficacy

One common class of ant-plant mutualism involves ants that defend plants from natural enemies in return for food and sometimes shelter. Studies of these interactions have played a major role in shaping our broad understanding of

The Contribution of Ant-Plant Protection Studies to Our

Ant-plant interactions are diverse and abundant and include classic models in the study of mutualism and other biotic interactions. By estimating a time-scaled phylogeny of more than 1,700 ant species and a time-scaled phylogeny of more than 10,000 plant genera, we infer when and how interactions between ants and plants evolved and assess ...

Ant-plant interactions evolved through increasing

Mutualism: Ant / plant systems A *Pseudomyrmex* ant feeds on nectar from an *Acacia* extrafloral nectary (=EFN). (Photo by the Max Plank Institute) *Pseudomyrmex* Ants: body guard for acacia against herbivores and other plants by biting and stinging ... Plant-Insect Interactions Author:

Lecture 9. Plant-Insect Interactions

Insect and Plant Interactions 2 Thought Question ... What does the Cold War and Insect/Plant Interaction have in common? 3 Answer Believe it or not, plant/insect interaction is very much like the cold war and the accompanying arms race between the United States ... Protection The *Cecropia* plant provides shelter and

food for the ant, and the ant

10 Insect and Plant Interactions - UF/IFAS

"The ecology and evolution of ant-plant interactions is an essential book for anyone who currently studies ant-plant interactions. It will also serve as required reading for graduate students who are beginning work on topics in this field.

The Ecology and Evolution of Ant-Plant Interactions, Rico

BIOTROPICA 30(2): 179-189 1998 Facultative Ant-Plant Interactions: Nectar Sugar Preferences of Introduced Pest Ant Species in South Florida™ Suzanne Koptur and Ni Truong Department of Biological Sciences, Florida International University, Miami, Florida 331 99, U.S.A.2

Facultative Ant-Plant Interactions: Nectar Sugar

Myrmecophytes (mē™râ€²mekâ€²É™â€šfÄ«t; literally "ant-plant") are plants that live in a mutualistic association with a colony of ants. There are over 100 different genera of myrmecophytes. These plants possess structural adaptations that provide ants with food and/or shelter. These specialized structures include domatia, food bodies, and extrafloral nectaries.

Myrmecophyte - Wikipedia

This book presents current research on all types of ant-plant interactions, and concentrates on understanding these often complex relationships in evolutionary and ecological terms.

Ant-Plant Interactions : Camilla R. Huxley : 9780198546399

Heil M and McKey D (2003) Protective ant-plant interactions as model systems in ecological and evolutionary research. Annual Review of Ecology, Evolution, and Systematics 34: 425-453. Heil M, Oróna™Tamayo D, Eilmus S et al. (2010) Chemical communication and coevolution in an ant-plant mutualism.

Ant-Plant Mutualisms

Abstract Protective ant-plant interactions, important in both temperate and tropical communities, are increasingly used to study a wide range of phenomena of general interest. As antiherbivore defenses are worn on the outside, they pose fewer barriers to experimentation than do direct (e.g., chemical) plant defenses.

Protective Ant-Plant Interactions as Model Systems in

Ant-plant interactions, especially food-for-protection mutualisms, have played a fundamental role in developing our current understanding of mutualism and contributed to important advancements in mutualism theory (Bronstein 1998).

CONSEQUENCES OF INTERACTION BETWEEN THE NATIVE ANT

Ant-plant interactions have been reported to change in number and in outcome among habitats, throughout the year and between years. However, most studies do not take into account temporal variation, or that ant colonies and their interactions with plants can change over time.

Variation in Ant-Plant Interactions - Chicago Scholarship

This chapter explores the origin and early evolution of ant-plant interactions, describes possible phylogenetic associations between the groups, presents some of the current evidence on the latter, and discusses some general ideas on coevolution and interspecific interactions, specifically related to ant-plant interactions.

Ant-Plant Interactions - Chicago Scholarship

Ant Plant Interactions ... Phylogeny, Ecology, and Evolution Molly Whalen Flinders University & Ecology and evolution of myrmecophytic interactions and the role of phylogenetic approaches in

understanding these interactions. Heil, M. and McKey, D. 2003. Protective ant-plant interactions as model systems in ecological and evolutionary ...

Ant Plant Interactions Phylogeny, Ecology, and Evolution

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Ant Plant Interactions - theececees.org

PDF The Ecology And Evolution Of Ant Plant Interactions ... Some aspects of the ant-plant interactions described in the book may be of interest to botanists, others to zoologists or ecologists, but the entire work is an excellent example of the marriage of these biological disciplines.

Ant Plant Interactions - sig-ed.org

This book presents current research on all types of ant-plant interactions, and concentrates on understanding these often complex relationships in evolutionary and ecological terms. The range of interactions varies from herbivory (leaf-cutter ants) to complex symbiosis.

Amazon.com: Ant-Plant Interactions (9780198546399

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Trait-mediated indirect interactions in invasions: unique behavioral responses of an invasive ant to plant nectar AMY M. SAVAGE AND KENNETH D. WHITNEY Department of Ecology and Evolutionary Biology, Rice University, 6100 Main Street, Houston, Texas 77005 USA

Trait-mediated indirect interactions in invasions: unique

Ants, plants, and homoptera interact in a wide variety of ways. Each participant in these interactions can affect the other two either directly or indirectly by affecting the third participant.

Ant-Plant-Homopteran Interactions - ScienceDirect

ant plant interactions impacts pdf The red imported fire ant (*Solenopsis invicta*), also known as the fire ant or RIFA, is a species of ant native to South America. A member of the genus *Solenopsis* in the subfamily Myrmicinae, it was described by Swiss

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Ant-plant interactions are geographically widespread, with hundreds of species of myrmecophytic plants in several families including the Leguminosae, Euphorbiaceae, and Orchidaceae. In general, myrmecophytes (or ant plants) usually provide some form of shelter and food in exchange for ant "tending," which may include protection, seed dispersal (see myrmecochory), reduced competition from other ...

Myrmecophily - Wikipedia

Characterizing the Interaction Between Fire Ants (Hymenoptera: Formicidae) and Developing Soybean Plants ROBERT G. SHATTERS, JR., AND ROBERT K. VANDER MEER1 ... KEY WORDS *Solenopsis invicta*, soybean, ant-plant interactions, fire ant, *Glycine max* THEREDIMPORTED fire ant, *Solenopsis invicta* Buren, was

F C Characterizing the Interaction Between Fire Ants

The Ecology and Evolution of Ant-Plant Interactions brings together findings from the scientific literature on the coevolution of ants and plants to provide a better understanding of the unparalleled success of these two remarkable groups, of interspecific interactions in general, and ultimately of terrestrial biological communities.

The Ecology and Evolution of Ant-Plant Interactions

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The Ecology And Evolution Of Ant Plant Interactions

â€˜â€˜Synthesis,â€™™â€™™ review antâ€™plant interactions (Andrew Beatty and Lesley Hughes) and future directions (John Thompson). The â€™â€™plantsâ€™™â€™™ interacting with ants include fungi, and the chapter provides an encyclopaedic summary of research published during the last decade. Missing is a recently discovered chem-

PLANT ANIMAL INTERACTIONS A SOMEWHAT EVOLUTIONARY APPROACH

Our results suggest that neighboring plants can exert strong and counterintuitive effects on ant-plant protection symbioses, highlighting the need to integrate plant-plant interactions into our understanding of these mutualisms.

Influence of neighboring plants on the dynamics of an ant

for Ant-Plant Interactionsâ€™ (Am. Nat., vol. 190, no. 3, p. 442) Table A1: Tree species, family affiliation, total number of surveyed trees, number of trees with ant-wound interactions, and mean

Appendix from M. Staab et al., Ants at Plant Wounds: A

between ants and plants is ant-mediated seed dispersal (myrmecochory). The interaction involves more than 11,000 plant species, but far fewer ant species, possibly just a few dozen keystone species worldwide.

Ant-mediated seed dispersal: A few ant species

Plant-ants use symbiotic fungi as a food source: new insight into the nutritional ecology of antâ€™plant interactions RumsaÄ±Ä’s Blatrix1,*, Champlain DjieÄ’to-Lordon2, Laurence Mondolot3, Philippe La Fisca3, Hermann Voglmayr4 and Doyle McKey1,5 1Centre dâ€™Ecologie Fonctionnelle et Evolutive (UMR 5175), CNRS, 1919 Route de Mende, 34293 Montpellier Cedex 5, France

Plant-ants use symbiotic fungi as a food source: new

This lab revolves around plant-based species interactions. Our key aim is to use experimental, theoretical and molecular techniques to study interkingdom interactions between plants, microbes and insects.

Plant-microbe-insect interactions

particular pairwise interactions between ant and plant species may vary in space and time, recent evidence from plantâ€™pollinator communities suggests that structural properties such as degree are relatively invariant in time despite often large variation in the

Body size predicts degree in antâ€™plant mutualistic networks

Nutritional benefits from domatia inhabitants in an antâ€™plant interaction: interlopers do pay the rent Joyshree Chanam1, Madavalam Sreeman Sheshshayee2, Srinivasan Kasinathan1, Amaraja Jagdeesh1, Kanchan A. Joshi1 and Renee M. Borges*,1 1Centre for Ecological Sciences, Indian Institute of Science, Bangalore 560012, India; and 2Department of Crop ...

Nutritional benefits from domatia inhabitants in an ant

Ant-plant interactions. Edited by Camila R. Huxley and David F. Cutler. Edited by Camila R. Huxley and David F. Cutler. (Oxford: Oxford University Press, 1991). xvii + 601 pp. Hard cover Â£60.00.

Ant-plant interactions. Edited by Camila R. Huxley and

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The Ecology And Evolution Of Ant Plant Interactions

Interaction between ants and orchids in the Soconusco region, Chiapas, Mexico. ... varied and intricate mutualistic interactions with plants ... (Rico-Gray, 1993). The majority of studies upon ant-plant mutualism have attempted to show that ants defend their

Interaction between ants and orchids in the Soconusco

vol. 179, no. 6 the american naturalist june 2012 The Direct and Ecological Costs of an Ant-Plant Symbiosis Megan E. Frederickson,^{1,*} Alison Ravenscraft,² Gabriel A. Miller,³ Lina M. Arcila Hernández,¹ Gregory Booth,¹ and Naomi E. Pierce³ 1.

The Direct and Ecological Costs of an Ant-Plant Symbiosis.

Plant-insect signaling interactions: constitutive vs. induced defense or counterdefense Constitutive Present round-the-clock Predictable interactive partners (e.g., specialist herbivores)

Lecture 10. Plant-insect interactions (II) antagonistic

Presents current research on all types of ant-plant interactions, and concentrates on understanding these often complex relationships in evolutionary and ecological terms.

Ant-plant interactions (Book, 1991) [WorldCat.org]

the researchers found that the long history of ant and plant co-evolution started with ants foraging on plants and plants later responding by evolving ant-friendly traits.

How plants evolved to make ants their servants - phys.org

Ant-Plant Interactions Indirect defense of plants via ants Many plant species produce extrafloral nectar on organs such as leaves, stems, and buds, thereby attracting ants, which in turn defend them against herbivores.

Ant-Plant Interactions - Shinji Sugiura's web site

ant/plant interactions, ant/fungus symbioses, and recent insights about ants and their endosymbionts. Using a large molecular clock-dated Formicidae phylogeny, we map the evolutionary origins of different ant clades™ ...

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