

Part III Foreword 3 + Photo



The mosaic of soils of rupestrian grasslands has produced a rich flora, and an astonishing fauna has developed to feed on them, adapting to their behavior, availability, and idiosyncrasies. But the fauna of rupestrian grasslands are otherwise mostly unknown, with studies having been concentrated in just few areas.

This section of the book focuses mostly on the interactions among species of plants, animals, and microorganisms. The breathing of the rupestrian grassland is investigated for the very first time with plenty of information on the phenological

patterns of plants. The timing of flowering along elevational gradients indicates not just how synchronized plants and pollinators are, but also highlights other unknown and rarely evaluated syndromes such as trends in flower colors and signaling to pollinators and fruit dispersers. As studies are spreading to different areas in this ecosystem, many new interactions and novelties have been described among insects and plants, and even among plant parasites and herbivores. Herbivory on environmentally stressed plants may augment the physiological stress of plants and cause a strong impact on host performance. Yet some organisms cannot be seen as only consumers, such as termites who play an important role in rupestrian grasslands by moving huge amounts of soil, thus increasing its quality for plants. The strong gradients in habitat quality along mountain chains represent powerful filters that have shaped plant and animal distributions.