

Mariposas Serranas de Argentina Central

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MARIPOSAS SERRANAS DE ARGENTINA CENTRAL. By Luis Volkmann and Ezequiel Nunez Bustos. Tomo 1: Papilionidae, Pieridae, Lycaenidae, Riodinidae. 140 pp. Equipo Grafico, Huerta Grande, Cordoba, Argentina. 2010. ISBN 978-987-25088-3-8.

After decades of slumber, butterfly study in Argentina is undergoing an awakening. And well it should! Argentina spans an array of life zones that rivals any country in the world: from tropical jungles to the stark high-altitude steppes, grasslands and deserts of the Andean altiplano, to the wind-swept plains of Patagonia and the dark, brooding subantarctic beech forests of the magellanic region. With such geographic diversity, the Argentine butterfly fauna offers taxonomic, biogeographic, ecological and evolutionary challenges aplenty. (This is, after all, a place where you can see parrots, penguins and rheas in one day, though not *Morphos* and subantarctic Whites.) At the same time, Argentina is a developed country with an infrastructure fully capable of supporting faunistic and monographic butterfly study; the biggest deterrent to such work has long been the perennially shaky state of the nation's economy, with little to spare in support of such frivolities.

This book represents an entirely home-grown effort by two Argentine nationals, one (Volkmann) an environmental educator, the other (Nunez Bustos) a field naturalist, ecotourism guide, and dedicated amateur Lepidopterist. It is envisioned as the first in a series of regionalized faunal guides to Argentine butterflies. The area covered (parts of the Provinces of Cordoba, San Luis, La Rioja, Catamarca and Santiago del Estero) is not by any means among the most diverse or interesting parts of the country, but it still has its charms, and plenty to offer. The term "Serranas" in the title is a tad misleading unless one is familiar with Argentine usage. It means "of the highlands" or "of the mountains." There are some very high mountains indeed in La Rioja and Catamarca. They are so remote as to be accessible only by packing in with livestock, flying in, or (as is increasingly popular) going in in all-terrain vehicles—though many of the most interesting areas here as elsewhere in Andean Argentina are controlled by mining companies and are strictly off-limits. But these places and their butterflies are outside the focus of this book, which instead concentrates on the relatively low Pampean Sierras—which, despite their not being so imposing, have until recently been little-collected. As a result there could be surprises yet

to be found there, including perhaps even species new to science—if so, probably in the Lycaenidae and/or Hesperiididae. But none shows up in the book. The highest elevations of the Sierras Pampeanas have floristic ties to the Andes proper (and the Sierras of Cordoba have a dilute tropical element). Much of the area is dominated by shrubsteppe or thorn scrub. Those familiar with the American Southwest would feel more or less at home among creosotebush, mesquite, acacia, and a variety of cacti. At higher elevations, with higher rainfall, the vegetation becomes denser, more exotic and more diverse. At low elevations, much of the native grassland in Cordoba and San Luis, traditionally devoted to open-range cattle pasture, has been converted in recent years to a monoculture of soybeans for export. We do not know what, if anything, may have been lost in the process.

Much of the butterfly fauna is clearly derived from the nearby tropics, though only a smattering of lowland-Neotropical lineages is represented. Some of the seemingly strictly-temperate elements are probably ultimately derived from the Neotropics, but their phylogeny has not been worked out yet. There are 21 Lycaenids: Hairstreaks are numerous and diverse; Blues are very poorly represented, though one of those (*Madeleinea moza*) is of special phylogenetic-biogeographic interest since its lineage is richest not in the tropics but in the temperate Southern Cone. There are 14 Riodinids. The Pierid and Papilionid faunas are small too (17 and 5 respectively). So this volume covers a total of 57 species, quite a manageable number. The second volume is projected to cover Nymphalidae in the broad sense (34 species) and Hesperiididae (45). The Satyrids, dominated by the temperate-latitude Pronophilina radiation, should be of special interest given that there is plenty of their preferred bunchgrass habitat in the Sierras Pampeanas and the group appears to be evolutionarily very dynamic. There are no regional endemics at all in this book, which may be something of a disincentive to collectors. But then, there are apparently no butterflies at the species level endemic to our own Great Basin, but the fauna and its distribution continue to generate great interest.

The species descriptions are accompanied by splendid, accurately-reproduced photographs from life, by both authors. Some of the species have never been reproduced photographically before. Early stages are also pictured when available (not very often; the life-histories of many of these insects are poorly if at all documented). Some of the life-history information is

new. The only error I found was the repetition of the canard that the White *Tatochila orthodice* feeds on Brassicaceae. It doesn't, but we only suspect that it actually eats either Fabaceae or Valerianaceae; someone should find out.

The introductory matter includes brief treatments of butterfly study, butterfly biology and conservation, and regional geography and vegetation. The plants shared with our own Southwest will be familiar to North American readers, but the South American ones by and large will not. Fortunately, we have on-line sources to help us visualize them.

For those who read Spanish and are interested not only in butterflies but also in the natural history of

Argentina, this is an immensely useful as well as beautiful little book. Books are expensive in Latin America, and this is no exception: the quoted price at publication was US \$40. As of this writing there is no US distributor; it can be ordered directly from the authors at (Nunez Bustos) argentinebutterflies@hotmail.com or (Volkmann) volkmann2009@hotmail.com.

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