One of the reported foodplants of *B. philenor, Asarum canadense* L. (Howe, 1975, The Butterflies of North America: 390), is locally abundant on moist, rocky hillsides along Spring Creek. It was assumed that the larvae were utilizing this resource, although none could be located. A similar observation is made by Harris (1972, Butterflies of Georgia: 158) for Bibb County where larvae used only cultivated *Aristolochia* even though *Asarum* was present. On 2 June 1978, a female was confined with potted *A. canadense*. She died after 10 days without oviposition. Internal examination revealed that she was mated and had numerous mature ova. We then began a more intensive search for the specific host.

On 4 August at about 1700 h, a female *B. philenor* was observed ovipositing on *Aristolochia serpentaria* L. This is the only *Aristolochia* species in the county and is rare and confined to the Ridge and Valley Province (Westerfeld, 1961, Castanea 26: 34). Additional small plants (about 30 cm in height) were subsequently located growing singly or in small groups on the rocky, open-wooded hillsides adjacent to the creek. Numerous ova and first to fourth instar larvae were found on these plants. Most ova were laid on the petioles and/or margins of the upper leaves with up to four individuals per plant. Plants growing in moist, brushy, shaded areas were larger and more luxuriant; however, ova and/or larvae were present in significantly lower numbers. A female captured on 8 August and confined with potted *A. serpentaria* oviposited within hours of confinement. The resulting ova plus 11 field-collected larvae were reared to pupa using potted plants. Enormous quantities of these plants were required to complete larval development and several field trips were needed to collect additional food. On one of these trips several late-instar larvae were observed wandering apparently in search of food. Ehle (1951, Lepid. News 5: 103) noted for Lancaster Co., Pennsylvania that the required food (*A. serpentaria*) far exceeded the quantity available at the original site. The last instar larvae consumed the leaves, seed capsules, and stems to within about 5 cm above ground level. Several first instar larvae were transferred to *A. canadense* immediately after emergence and all died without eating. In addition, last instar larvae temporarily confined with this species refused to eat. Saunders (1932, Butterflies of the Alleghany State Park: 234) remarked that he was able to get *B. philenor* larvae to eat only *Aristolochia* and not *Asarum* except for one larva which "ate a little Wild Ginger, but did not seem to like it." Of the 25 larvae reared to pupa, 60% diapaused and were refrigerated.

Conclusions which may be drawn from these observations are as follows: The use of *Asarum canadense* as a larval food source is to be seriously questioned if not completely discounted. At the Spring Creek site, the amount, distribution, and availability of the host plant, *Aristolochia serpentaria*, appears to be a significant factor in regulating population size. Selection pressure toward producing adult females and larvae with maximum search capabilities would be necessary to maintain a stable population in the absence of immigration. Larval parasitism (or predation) was not investigated, however, all of the field collected larvae (third and fourth instars) were successfully reared to pupae.

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Journal of the Lepidopterists' Society
33(4), 1979, 268–269

BOOK REVIEW

BUTTERFLIES OF SOUTH AUSTRALIA, by Robert H. Fisher, 1978. One of the series "Handbooks of the Flora and Fauna of South Australia," issued by the Handbooks Committee for the South Australian Government, 8vo, soft cover, [iii] + 272 pp., 83 text figures, 16 color plates. Price $9.50 Australian (approximately $11.00 U.S.).

Beyond the above information, the book gives no clue as to where one might obtain a copy. Word from Entomological Reprint Specialists is that they will stock it eventually but have no copies at this writing.

This little carp aside, the book is a gem. The front matter includes a history of the study of South Australian butterflies, short but informative explanations of classification, life histories (and how to study and record them), anatomy, distribution, how to make and keep a collection. In the back of the book is a systematic list of larval foodplants and the butterflies that use them, a lengthy (6 pp.) bibliography, a lengthy glossary (8 pp.), and an index.

The bulk of the book, of course, comprises the species accounts. The butterfly fauna of Australia numbers in all 366 species of butterflies, of which 64 occur in South Australia. Each of them is figured in color, generally both sexes and both surfaces (with full data appended for each figured individual), and thoroughly discussed: references, terse description, larval foodplants, life history, habits, distribution, abundance, seasons of flight. The color photographs of adults are all variously reduced (½ to ¾), which does not diminish their usefulness except in the smaller species, particularly some of the Hesperiidae and Lycaenidae. So much white space surrounds the figures of the latter groups that they easily could have been expanded to life size at no extra cost, and that is unfortunate.

The most outstanding features of this volume, however, are the beautiful black and white illustrations of the living early stages. The photographs are clear and crisp, and unbelievably numerous. As a rough estimate, about 80% of the species are so illustrated, some with supplemental color photographs as well. The figures for each species usually include the egg, larva (often both young and mature), and pupa, in most instances the first published illustrations of them.

The Butterflies of South Australia is clearly aimed at the local collector, who is blessed thereby with a guide that lepidopterists in most other parts of the world would envy: authoritative, detailed, packed with information and good illustrations, stimulating in its frequent mention of subjects still in need of careful study. Mr. Fisher knows and presents his subject well, and I recommend his book heartily to butterfly students, not just in South Australia but wherever they may be, if their interests extend even a little beyond the parochial and the philatelic.

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Journal of the Lepidopterists' Society
33(4), 1979, 269–270

BOOK REVIEW

THE BUTTERFLIES OF ORANGE COUNTY, CALIFORNIA, by Larry J. Orsak, 1977. Center for Pathobiology, Museum of Systematic Biology, University of California, Irvine. 349 pp., 7 halftone plates, 56 text figs., 4 maps. Paperback. Price: $4.00.

This book is more than a regional checklist; it is a treatise on butterflies designed to be independently useful to the beginning collector. The species accounts which form its main body and purpose are preceded by extensive introductory material on classification, variation, structure and behavior; much of it common to most butterfly manuals, but other aspects (e.g., sound production, hilltopping, nectaring) seldom treated outside the periodical literature and consequently less easily available. Several appendices contain additional general information.

In content, therefore, the work is exhaustive and informative. Its organization, however, is another matter. In this respect it suffers certain shortcomings which make its use difficult, especially for one not already familiar with the fauna it covers.