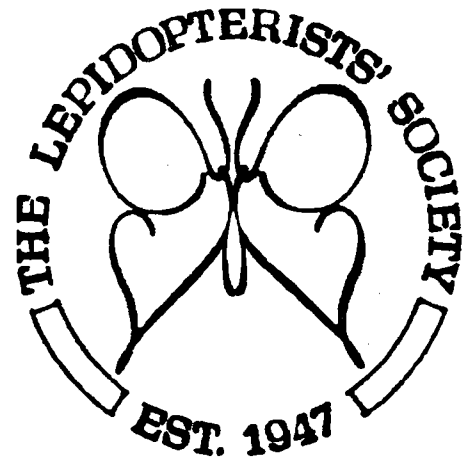


NEWS

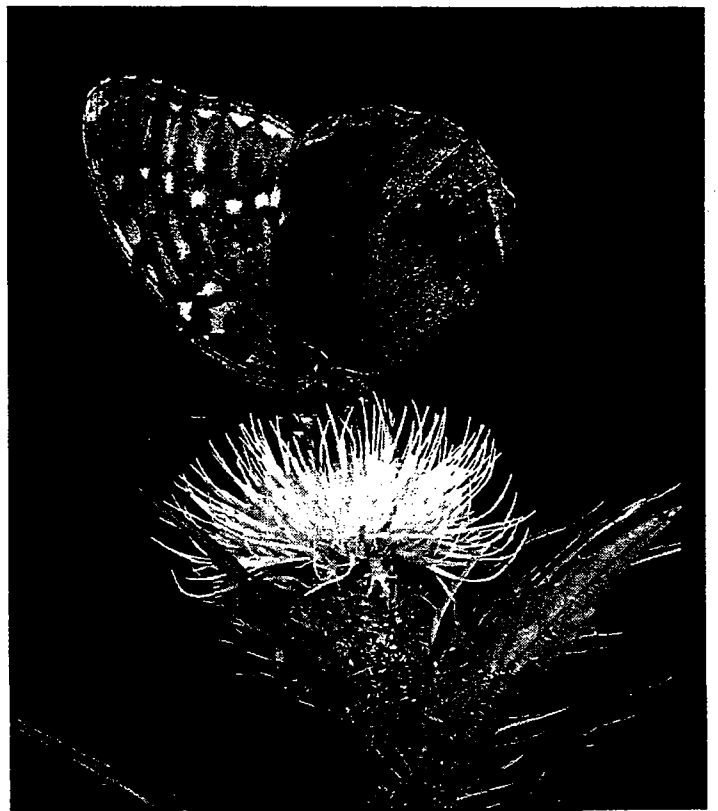
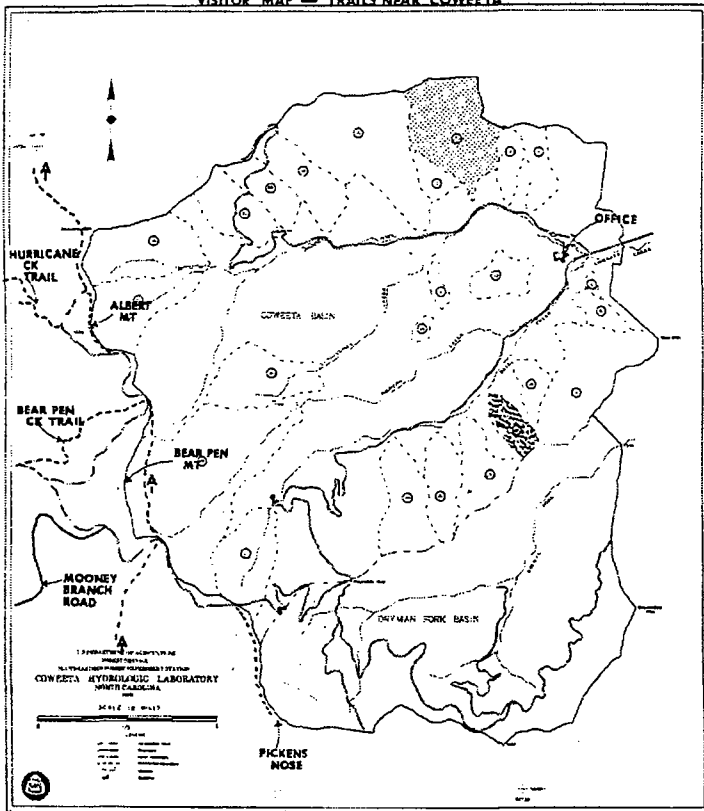
OF THE

LEPIDOPTERISTS' SOCIETY



Volume 39, Number 4 Autumn 1997

VISITOR MAP — TRAILS NEAR COWEETA



Inside:

Butterflies of Coweeta Hydrologic Laboratory, North Carolina...

White Monarchs in Florida - more than meets the eye!...

50th Anniversary meeting photos and news...

Benjamin Preston Clark...

Giant silkmths on US stamps? Why not!

An Io bilateral gynandromorph...

...and more!

NEWS OF THE LEPIDOPTERISTS' SOCIETY

Volume 39, No. 4 Autumn 1997



Contents

The Lepidopterists' Society is a non-profit educational and scientific organization. The object of the Society, which was formed in May 1947 and formally constituted in December 1950, is "to promote internationally the science of lepidopterology in all its branches; to further the scientifically sound and progressive study of Lepidoptera, to issue periodicals and other publications on Lepidoptera; to facilitate the exchange of specimens and ideas by both the professional worker and the amateur in the field; to compile and distribute information to other organizations and individuals for purposes of education and conservation and appreciation of Lepidoptera; and to secure cooperation in all measures" directed towards these aims. (Article II, Constitution of The Lepidopterists' Society.)

The **News of the Lepidopterists' Society** (ISSN 0091-1348) is published 4 times per year by The Lepidopterists' Society, c/o Los Angeles County Museum of Natural History, 900 Exposition Blvd., Los Angeles, CA 90007-4057, USA., and includes one or two supplements each year. The **Season Summary** is published every year as issue number 2 of the News. In even numbered years a complete **Membership Directory** is published as issue number 6. Please see the inside back cover for instructions regarding submissions to, and deadline dates for, the News. Postage paid at Lawrence, KS.

Copyright © 1997 by The Lepidopterists' Society. All rights reserved. The statements of contributors do not necessarily represent the views of the Society or the editor and the Society does not warrant or endorse products or services of advertisers.

1997 Report of the Resolutions Committee. <i>Andrew D. Warren</i>	68
A Preliminary Inventory of Butterflies of the Coweeta Hydrologic Laboratory, North Carolina. <i>Gary N. Ross</i>	70
Florida White Monarchs - a touch of incest? <i>R.I. Vane-Wright</i>	72
Benjamin Preston Clark on Sphingidae. <i>Russell A. Rahn</i>	73
Stamp Moths! <i>Mark D. Schmidt</i>	74
New Journal Debuts.	74
The Lepidopterists' Bookshelf. <i>Boyce A. Drummond</i>	75
<i>Florida's Fabulous Butterflies</i>	75
<i>Monarch Butterflies: beauty takes flight</i>	76
Recently Published Books. <i>Boyce A. Drummond</i>	77
50th Anniversary (48th Annual) Meeting Group Photo.	78
Membership Update... <i>Julian Donahue</i>	80
Calendar.	81
Out of the Net... <i>Jim Taylor</i>	82
The Marketplace.	83
Some 1997 Meeting Photos...	86
A Bilateral Gynandromorph of <i>Automeris io</i>. <i>Ron Roscioli</i>	88
From the Editor's Desk.	89
Backpages:	
Membership Information, Dues Rates, Journal of the Lepidopterists' Society, Change of Address?, Our Mailing List?, Missed or Defective Issue?, Book Reviews, Submission Guidelines for the News	90
Executive Council.	91
Season Summary Zone Coordinators.	91

Issue Date: Dec. 15, 1997

ISSN 0091-1348



Left: The Harkness Tower at Yale University, site of the 50th Anniversary Meeting. Right: Outgoing (in every sense of the word!) President Eric Metzler presenting the Karl Jordan Medal to inductee Ron Hodges. Photos courtesy of Ray Stanford. For more photos see pages 86-87 and the center spread.



Cover: *Map of Coweeta Hydrologic Laboratory, North Carolina and Diana (Speyeria diana, Nymphalidae) nectaring on thistle. Photo by Gary Ross. See article on page 70.*

Preliminary Inventory of the Butterflies of Coweeta Hydrologic Laboratory, Nantahala National Forest, North Carolina

Gary Noel Ross

6095 Stratford Ave., Baton Rouge, Louisiana 70808, USA

Coweeta Hydrologic Laboratory (CHL) is located on the eastern flanks of the Nantahala Mountain Range of southwest North Carolina (at 35° 03' N. latitude, 83° 25' W longitude) within the Blue Ridge Physiographic Province (see Swank and Crossley 1988 for full description and history). The site is on the outskirts of the small community of Otto, North Carolina — just 10 km north of the North Carolina-Georgia border, 22 km south of the gem-mining center of Franklin, NC, and 60 km west of picturesque Highlands, NC.

Originally established in 1934 as the Coweeta Experimental Forest to collect data on rainfall, streamflow, climate and forest growth, the name was changed to Coweeta Hydrologic Laboratory in 1948. Today the site is one of 19 in the nation participating in the Long-Term Ecological Research Program (LTER) sponsored by the National Science Foundation. In addition, CHL has been part of the International Biological Program, the International Hydrologic Decade and UNESCO'S Man and the Biosphere project (in which it is paired with the Great Smokey Mountains National Park approximately 100 km to the north).

CHL cooperates with more than a dozen universities, other federal and state organizations, and other institutions. Because of these numerous affiliations, CHL has assumed an important role in the training of new scientists in many biological disciplines (each year approximately 30 projects are in progress involving 45 graduate students and 40 senior investigators). Nearly a thousand papers are listed in the annotated bibliography for CHL (Stickney et al. 1994).

This unique outdoor laboratory consists of 2185 ha with two adjacent, east-facing, bowl-shaped basins. Elevations range from 675 m in the administrative area to 1592 m at Albert Mountain. Access to the facility is by paved road — a spur west from US highway 441/23 just south of Otto. Within the actual "Laboratory," there are two main gravel roads: Shope Fork and Ball Creek. Both provide access to the higher elevations and are open to the public for most of the year. Additionally, there are smaller service roads and trails that are closed to public vehicles but are open for research access. Although the entire site is open to the public, no camping or fires are permitted. There is, however, a full service camp ground, "Standing Indian Campground," approximately fifteen miles southwest of Franklin. (Small private campgrounds are found in both Otto and Franklin.)

Because rainfall at Coweeta is plentiful throughout the year (1,871 mm/yr at lower elevations, 2,564 mm/yr at upper elevations), the site and surrounding areas are cloaked in a luxuriance of temperate forest vegetation. Four major vegetation types are identified at Coweeta:

northern hardwoods, cove hardwoods, oak-chestnut and oak-pine. Eastern hemlock (*Tsuga cana-densis*) is scattered throughout, and understories are dominated by dense stands of rhododendrons, azaleas and mountain laurels. Ferns, bryophytes and fungi are rampant. All combine to foster the illusion of a temperate rainforest. (Biogeographers classify the region within Merriam's "Transition Life Zone.") Furthermore, within its 60 plus years of operation, CHL has manipulated numerous watersheds for forest hydrology and system research. These prescriptions created new habitats that have undergone ecological succession, adding to the diversity of plant and animal species.

List of Species

Name	Survey	Abundance
Family Papilionidae		
1. Pipevine Swallowtail — <i>Battus philenor</i> (L.)	A,B	+++
2. Black Swallowtail — <i>Papilio polyxenes</i> Fabricius	B	+
3. Eastern Tiger Swallowtail — <i>Pterourus glaucus</i> (L.)	A,B	++++
4. Spicebush Swallowtail — <i>Pterourus troilus</i> (L.)	A,B	++++
Family Pieridae		
5. Checkered White — <i>Pontia protodice</i> (Bois. & LeConte)	A	+
6. Cabbage Butterfly — <i>Pieris rapae</i> (L.)	A,B	++
7. Alfalfa Butterfly — <i>Colias eurytheme</i> Boisduval	B	++
8. Cloudless Sulphur — <i>Phoebis sennae</i> (L.)	A,B	+++
9. Little Sulphur — <i>Eurema lisa</i> (Boisduval & LeConte)	A	++
10. Sleepy Orange — <i>Eurema nicippe</i> (Cramer)	A,B	+++
Family Lycaenidae		
11. Harvester — <i>Feniseca tarquinius</i> (Fabricius)	B	++
12. Little Copper — <i>Lycaena phlaeas</i> (L.)	B	+
13. Red-banded Hairstreak — <i>Calycopis cecrops</i> (Fabr.)	B	+
14. White-M Hairstreak — <i>Parrhasius m-album</i> (Bois. & LeConte)	B	+
15. Gray Hairstreak — <i>Strymon melinus</i> Hubner	A,B	+
16. Eastern Tailed Blue — <i>Everes comyntas</i> (Godart)	A,B	++++
17. Spring Azure — <i>Celastrina ladon</i> (Cramer)	B	++++
Family Heliconiidae		
18. Gulf Fritillary — <i>Agraulis vanillae</i> (L.)	B	+

Although CHL is ideal for hydrologic and ecosystem-based research, the facility also lends itself well to many terrestrial biological studies and surveys. Surprisingly, no butterfly investigations were ever conducted prior to my initial visit in 1990. At that time, September 17 and 18, I was able to undertake a general survey. Twenty-one species were identified. Then in 1996, between August 13 and September 1, I was able to resurvey the region. Forty-six species were identified. (Both surveys were conducted only at lower elevations because of time constraints or timber salvage operations brought about by Hurricane Opal in October 1995.) The two surveys bring the total number of species now known from CHL to 50 (see LIST OF SPECIES). Undoubtedly, several additional species still remain to be chronicled, particularly at higher elevations and during the earlier months of the year.

General Comments

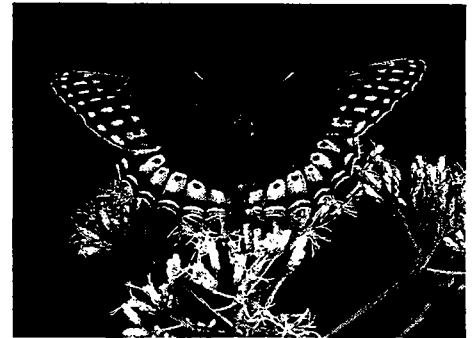
Weather at Coweeta Hydrologic Laboratory during August and September is cool and damp. Rain showers are common and most mornings begin with a fog cover

in the valley that usually does not burn off until 1030 - 1100 h EDT. During August, temperatures range between 9 C at night to 23 C during the day. During September, temperatures dip 1 - 2 degrees lower during the night.

Wildflowers in August and September are abundant throughout the Coweeta Valley. Roadsides and meadows near the administrative complex are particularly important for nectaring insects such as butterflies. During my two visits, I found the following species to be favored by butterflies (species are listed in descending order of popularity): thistle, *Carduus discolor* (Michl. ex. Willd.) Nuttall; Joe Pye weed or Queen-of-the-Meadow, *Eupatorium fistulosum* Barratt; sweet Joe Pye weed, *Eupatorium purpureum* L.; New York ironweed, *Vernonia noveboracensis* (L.) Michx.; monarda, *Monarda clinopodia* L.; Queen Anne's lace, *Daucus carota* L.; goldenrod, *Solidago* spp.; asters, *Aster* spp.; boneset, *Eupatorium perfoliatum* L. and white snakeroot, *Eupatorium rugosum* Houtt.

I conducted both surveys on foot. Except during rain showers, I was in the field

from 1000 - 1800 h EDT each day. Species' identifications were made by sight, often with the assistance of close-focusing binoculars ("Regal" by Celestron, 8 X 42, 6.25 feet). In some cases, individual butterflies were netted for in-hand examination; then were released.



Female *Diana Fritillary* — *Speyeria diana*. Photo. by Gary N. Ross

Summary

Coweeta Hydrologic Laboratory, located in the Nantahala National Forest of western North Carolina, is a 2185 ha U.S.D.A. Forest Service research laboratory that has been in continuous operation since 1934. Although hundreds of

continued on page 88...

Name	Survey Abundance	Name	Survey Abundance
Family Nymphalidae		Family Hesperidae	
19. Variegated Fritillary — <i>Euptoieta claudia</i> (Cramer)	A,B	36. Silver-spotted Skipper — <i>Epargyreus clarus</i> (Cramer)	B + + + +
20. Diana — <i>Speyeria diana</i> (Cramer)	A,B	37. Long-tailed Skipper — <i>Urbanus proteus</i> (L.)	B +
21. Great Spangled Fritillary — <i>Speyeria cybele</i> (Fabr.)	A,B + + + +	38. Southern Cloudy Wing — <i>Thorybes bathyllus</i> (J.E. Smith)	B +
22. Aphrodite — <i>Speyeria aphrodite</i> (Fabricius)	B	39. Northern Cloudy Wing — <i>Thorybes pylades</i> (Scudder)	B + + +
23. Silvery Checkerspot — <i>Charidryas nycteis</i> (Doubleday & Hewitson)	B	40. Horace's Dusky Wing — <i>Erynnis horatius</i> (Scudder & Burgess)	B + +
24. Pearl Crescent — <i>Phyciodes tharos</i> (Drury)	A,B + + + +	41. Common Sooty Wing — <i>Pholisora catullus</i> (Fabr.)	B + + +
25. Question Mark — <i>Polygonia interrogationis</i> (Fabr.)	B	42. Least Skipper — <i>Ancyloxypha numitor</i> (Fabricius)	B + +
26. American Painted Lady — <i>Vanessa virginiensis</i> (Drury)	A	43. Fiery Skipper — <i>Hylephia phyleus</i> (Drury)	B + + +
27. Red Admiral — <i>Vanessa atalanta</i> (L.)	A,B	44. Peck's Skipper — <i>Polites coras</i> (Cramer)	B + +
28. Buckeye — <i>Junonia coenia</i> Hubner	A,B + + +	45. Tawny-edged Skipper — <i>Polites themistocles</i> (Latreille)	B + +
29. Red-spotted Purple — <i>Basilarchia arthemis astyanax</i> (Fabricius)	A,B + +	46. Whirlabout — <i>Polites vibex</i> (Geyer)	B + +
30. Viceroy — <i>Basilarchia archippus</i> (Cramer)	A,B	47. Northern Broken Dash — <i>Wallengrenia egeremet</i> (Scudder)	B +
Family Satyridae		48. Sagem — <i>Atalopedes campestris</i> (Boisduval)	B + + +
31. Northern Pearly Eye — <i>Enodia anthedon</i> A.H. Clark	B + + +	49. Zabulon Skipper — <i>Poanes zabulon</i> (Bois. & LeConte)	B + + + +
32. Appalachian Eyed Brown — <i>Satyroides appalachia</i> (R.L. Chermock)	B + +	50. Lace-winged Roadside Skipper — <i>Amblyscirtes aesculapius</i> (Fabricius)	B + +
33. Carolina Satyr — <i>Hermeuptychia sosybius</i> (Fabr.)	B + +	Notes:	
34. Common Wood Nymph — <i>Cercyonis pegala</i> (Fabr.)	B + +	1. Survey Dates: A = September 17 and 18, 1990; B = August 13 - September 1, 1996	
Family Danaidae		2. Relative Abundance (per day): + = Rare, only 1; ++ = Uncommon, 2-5; +++ = Common, 6-10; + + + + = Abundant, more than 10	
35. Monarch — <i>Danaus plexippus</i> (L.)	A,B + + +		

Coweeta...continued from page 71

research projects have been conducted at the site over the years, no survey of its butterfly life was ever undertaken prior to this inventory. The author visited the site twice: September 17 - 18, 1990 and August 13 - September 1, 1996. A total of 50 species of butterflies and skippers were identified and observed for level of abundance.

Acknowledgements

I thank James R. Maudsley (Athens, Georgia) for initially sparking my interest in Coweeta Hydrologic Laboratory and the staff at Coweeta for making my visits there convenient and enjoyable. I thank Dr. Wayne T. Swank for his comments regarding the manuscript.

Literature Cited

- Stickney, P.L.; Swift Jr., L.W.; Swank, W.T. 1994. Annotated Bibliography of Publications on Watershed Management and Ecological Studies at Coweeta Hydrologic Laboratory, 1934-1994. U.S.D.A., Forest Service, Southeastern Forest Experiment Station. General Technical Report SE-86. Asheville, NC. 115 pp.
- Swank, W.T.; Crossley Jr., D.A. eds. 1988. *Forest Hydrology and Ecology at Coweeta*. Ecological Studies, vol. 66. New York. Springer-Verlag. 469 pp.

**Marketplace...cont. from pp. 85****Help Offered**

Wish to collect legally in Costa Rica? Whether you decide to visit Costa Rica for leisure or work we can help you obtain your Official Collecting Permit for the time of your stay. You would be allowed to collect in all the country (except National Parks). Costa Rica rain forests are unique in what you can get species coming from the north (Mexico) or the south (South America). Contact Miguel E. Chumpitasi, P.O. Box 1105-2150 Moravia, San Jose, Costa Rica or phone/fax (506) 235-5160.

394

Monarch...continued from page 72

- Clark, A.H. 1932. The butterflies of the District of Columbia and vicinity. Smithsonian Institution United States National Museum Bulletin (157), 337 pp., 64 pls.
- Cockrell, B.J., Malcolm, S.B. and Brewer, L.P. 1993. Time, temperature, and latitudinal constraints on the annual recolonization of eastern North America by the Monarch butterfly. In *Biology and Conservation of the Monarch Butterfly* (S.B. Malcolm and M. Zalucki, eds), pp. 233-251. Los Angeles County Museum, Los Angeles.
- Gunder, J.D. 1927. New transition forms or "abs" and their classification (Lepid. Rhopalocera). *Entomological News*, 38: 129-138, 1 pl.
- Malcolm, S.B., Cockrell, B.J. and Brewer, L.P. 1993. Spring recolonization of eastern North America by the Monarch butterfly: successive brood or single sweep migration? In *Biology and Conservation of the Monarch Butterfly*

(S.B. Malcolm and M. Zalucki, eds), pp. 253-267. Los Angeles County Museum, Los Angeles.

Stimson, J. and Myers, L. 1985. Inheritance and frequency of a color polymorphism in *Danaus plexippus* (Lepidoptera: Danaidae) on Ohahu [sic!], Hawaii. *Journal of Research on the Lepidoptera*, 23: 153-160.

Vane-Wright, R.I. 1987. [White monarchs: reply to Malcolm & Brower.] *Antenna*, London, 11:3.

Vane-Wright, R.I. 1993. The Columbus hypothesis: an explanation for the dramatic 19th century range expansion of the monarch butterfly. In *Biology and Conservation of the Monarch Butterfly* (S.B. Malcolm and M. Zalucki, eds), pp. 179-187. Los Angeles County Museum, Los Angeles.

Van Hook, T. 1993. Non-random mating in Monarch butterflies overwintering in Mexico. In *Biology and Conservation of the Monarch Butterfly* (S.B. Malcolm and M. Zalucki, eds), pp. 49-60. Los Angeles County Museum, Los Angeles.

A Bilateral Gynandromorph of *Automeris io*

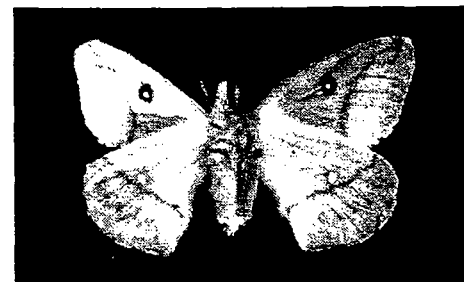
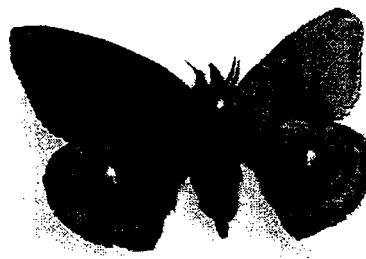
Ron Roscioli

101 Rose Ct., Easton, PA 18042

The accompanying photos are of an *Io* moth (*Automeris io*) I reared as a larva in 1995, which emerged in early July 1996. It is clearly a bilateral gynandromorph. The left side is female, while the right side is male, except that both rear wings are female, and dorsally; the thorax appears to become all female about half way back, thus having a female rear wing on that side also. Ventrally, the female rear wing does have a streak of yellow in it. The abdomen dorsally appears

to show the female color, but ventrally is split perfectly down the center, half being reddish of female and half being yellow of the male.

Its face is clearly half-and-half, having one male and one female antennae. Its legs are also red female on one side and yellow male on the other. The genitalia, also appear to be split, having a clasper on the male side, but it appears to have something stuck on it, perhaps part of the pupal case.



An almost perfect bilateral gynandromorph of *Automeris io*. Left, dorsal; Right, ventral. Photos by Ron Roscioli.