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# PHOTOGRAPHING NEOTROPICAL METALMARKS (LEPIDOPTERA: RIODINIDAE)

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**ABSTRACT.**— Metalmarks (Riodinidae) are particularly beautiful subjects for the butterfly photographer. Presented herein are 43 photographs of riodinids in nature, and one picture of a riodinid-mimicking hesperiid, from Brazil, Costa Rica, Ecuador, Mexico, and Peru.

**KEY WORDS:** *Adelpha*, *Amarynthia*, *Ancyluris*, Arctiidae, *Batesia*, Brazil, *Cabirus*, *Calydna*, *Caria*, *Chalodeta*, *Chamaelimnas*, *Charis*, *Chorinea*, Costa Rica, *Crocozona*, Danainae, Diopitidae, *Dynamine*, Ecuador, *Emesis*, *Eurybia*, *Euselasia*, Geometridae, Heliconiinae, Hesperidae, *Lasaia*, *Lemonias*, *Leucochimona*, *Mesosemia*, *Metacharis*, Mexico, *Monethe*, Nymphalidae, *Nymphidium*, *Panara*, *Parcella*, *Parides*, Peru, photography, Pyralidae, *Rhetus*, *Riodina*, Rondonia, *Sarota*, *Semomesia*, *Siseme*, *Siproeta*, *Stalachtis*.



Of all the butterfly groups in the Neotropics, I most prefer the Riodinidae, or metalmarks. They are often as cooperative in behavior as the docile nymphalids and glow like little jewels in photographs. In this article, I present some results of my many attempts to photograph riodinids in Costa Rica, Mexico, Peru, Ecuador, and Brazil. These photographs were taken during trips between 1985 and 1991; the last four of these were butterfly trips led by my colleague Dr. Thomas C. Emmel.

Riodinidae have every reason to be very "seductive" butterflies for a photographer, but they could also be compared to the "poison apples" of some fairy tales: the broad spectrum of striking colors—their strongly reflecting silver spots and different variable alternating metallic iridescence and additional colorful undertones dependent on the direction of either natural or artificial light—all make them very attractive. Because of their habit of flying only during certain periods of the day, and often



resting on the undersides of leaves, they are sometimes elusive, like a *Fata Morgana*, and lure the photographer deeper and deeper into the darkness of the impenetrable jungle.

From the standpoint of a "close-up photographer," the most cooperative butterflies are probably certain nymphalids, especially in the genus *Adelpha*. *Adelphas* often aggregate around the photographer and various baits, nets, bags, and other objects, and like to sit on these items. They especially like those parts which have come into contact with sweating hands. Here they will pose with either opened or closed wings for long periods of time, and they will often follow the photographer if he walks away. Other nymphalids, e.g., *Dynamine*, *Siproeta*, and *Batesia*, also behave this way, together with some heliconiids and danaiids. Less cooperative in a behavioral sense are papilionids (e.g., *Parides* spp.), especially when nectaring and fluttering among flowers. Resulting pictures are therefore often mediocre ones, unless we are lucky and catch the right moment and are prepared with the right *f*-stop, or are able to approach a papilionid that is absorbed in drinking on moist sand or bait.

On many occasions, one must lie on one's back (in this way, I was able to photograph the mimetic *Cabirus procas* shown in Fig. 3) and inch slowly under the plant. Just when we are in the perfect position to "capture" our quarry on film, it may flit off to another leaf. This is true both for riodinids and hesperiids. Especially challenging is one of the smallest riodinids, *Sarota* spp. (Fig. 38-39), which often lands on the upperside of a leaf, but then, walking on its white and hairy legs, soon hides itself on the lower side of the same leaf.

In attempts to select the optimal *f*-stop and shutter speed, the old Latin proverb comes to mind: *incidit in Scyllam, qui vult vitare Charybdis* (Falls into the Scylla, who wants to avoid Charybdis). In our situation, we are walking a razor's edge between overexposure and underexposure. It is advisable to avoid photographing specimens if they are perching on a leaf where they are exposed to direct sunlight: only a photographer not using electronic flash could try his or her luck under these conditions. When using flash under such conditions, even a very intense red color turns into orange, yellow into white, blue into very pale blue, etc. Also, the green iridescence of such metalmarks as *Caria* spp. may turn yellowish white. Unless we try at least four different *f*-stops for the same picture of a cooperating butterfly, we may be disappointed. It is worth noting also that in general underexposed photographs are better than overexposed ones, because they can be partly "improved" by specialized photographic laboratories, but overexposed slides may only be worth discarding.

Some species, e.g., those in the genus *Ancyluris*, are often restless, especially when on the ground, walking here and there, rotating, "dancing," and waving the wings. Many times, we miss the right moment, when wings are in a quasi-horizontal position.

As one can see from the accompanying photographs, though, all the trial and tribulations of butterfly photography in the field are forgotten when the fruits of your labor finally come out as a crisp, colorful image of the living metalmark butterfly—a never-to-be-forgotten reminder of pleasant days spent in the tropical rain forests of the Americas.

## ALPHABETICAL LIST OF PHOTOGRAPHED SPECIES

- Amarynthis meneria** (Cramer) Fig. 1  
Rondonia, 60Km south of Ariquemes, Brazil, 7 Nov 1989.
- Ancyluris etias** Saunders Fig. 2  
Rondonia, Brazil, 20 Mar 1991.
- Cabirus procas** (Cramer) – HESPERIIDAE Fig. 3  
Rondonia, Brazil, 10 Nov 1989. This species, which I originally thought to be a riodinid, seems to be a member of a mimetic complex involving Riodinidae, Hesperidae, and some species of Neotropical moth families like Arctiidae, Dioptridae, Geometridae, and Pyralidae.
- Calydna catana** Hewitson Fig. 4  
Rondonia, Brazil, 22 Mar 1991.
- Calydna punctata** Felder & Felder Fig. 5  
Rondonia, Brazil, 22 Mar 1991.
- Caria** sp. near **lampeto** (Godman & Salvin) Fig. 6  
Rondonia, Brazil, 10 Nov 1989.
- Caria** sp. near **lampeto** (Godman & Salvin) Fig. 7  
Rondonia, Brazil, 17 Mar 1991.
- Caria trochilus arete** Felder & Felder Fig. 9  
Rondonia, Brazil, 10 Nov 1989.
- Chalodeta theodora** (Felder & Felder) Fig. 17  
Rondonia, Brazil, 9 Nov 1989.
- Chamaelimnas pansa** Godman Fig. 14  
Rondonia, Brazil, 8 Nov 1989.
- Charis** sp. Fig. 16  
Tinalandia, Ecuador, 9 May 1990.
- Charis cleonus** (Stoll) Fig. 11  
Explorama Lodge, Loreto, Peru, 18 Jul 1989.
- Charis cleonus** (Stoll), pair in copula Fig. 8  
Rondonia, Brazil, 9 Nov 1989.
- Chorinea amazon** (Saunders) Fig. 10  
Rondonia, Brazil, 17 Mar 1991.
- Chorinea amazon** (Saunders) Fig. 12  
Rondonia, Brazil, 8 Nov 1989. In the afternoon (around 3 PM), this species sometimes comes to the ground to sip water.
- Crocozona caecias** (Hewitson) Fig. 15  
Rondonia, Brazil, 8 Nov 1989.
- Emesis** sp. Fig. 14  
Puerto Vallarta, Mexico, 18 Feb 1988.
- Eurybia lycisca** Westwood Fig. 19  
Turrialba, Costa Rica, 15 May 1985.
- Eurybia halimede** (Hübner) Fig. 21  
Explorama Lodge, Loreto, Peru, 16 Jul 1989. The right side shows a *Heliconius* sp.
- Euselasia** sp., **anica** group Fig. 20  
Explorama Lodge, Loreto, Peru, 20 Jul 1989.
- Euselasia** sp., **eutychnus** group Fig. 22  
Rondonia, Brazil, 10 Nov 1989.
- Euselasia arbas serapis** Stichel Fig. 23  
Rondonia, Brazil, 11 Nov 1989.
- Euselasia melaphaea** Hübner Fig. 24  
Rondonia, Brazil, 15 Mar 1991.
- Lasaia** sp. Fig. 25  
Rondonia, Brazil, 16 Mar 1991.
- Lemonias zygia egaensis** Butler Fig. 26  
Rondonia, Brazil, 3 Nov 1989.



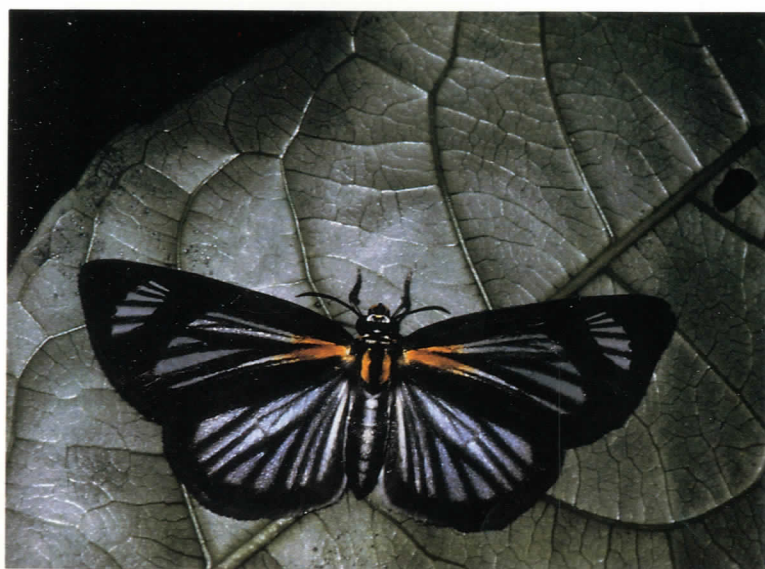


Fig. 1. *Amarynthis meneria*  
Fig. 2. *Ancylyris etias*

Fig. 3. *Cabirus procas* (Hesperiidae)  
Fig. 4. *Calydna catana*

Fig. 5. *Calydna punctata*  
Fig. 6. *Caria* sp. near *lampeto* ♂





Fig. 7. *Caria* sp. near *lampeto* ♂  
Fig. 8. *Charis cleonus*, in copula

Fig. 9. *Caria trochilus arete* ♂  
Fig. 10. *Chorinea amazon*

Fig. 11. *Charis cleonus* ♂  
Fig. 12. *Chorinea amazon*





Fig. 13. *Chamaelimnas pansa*  
Fig. 14. *Emesis* sp.

Fig. 15. *Crocozona caecias*  
Fig. 16. *Charis* sp.

Fig. 17. *Chalodeta theodora*  
Fig. 18. *Monethe albertus*



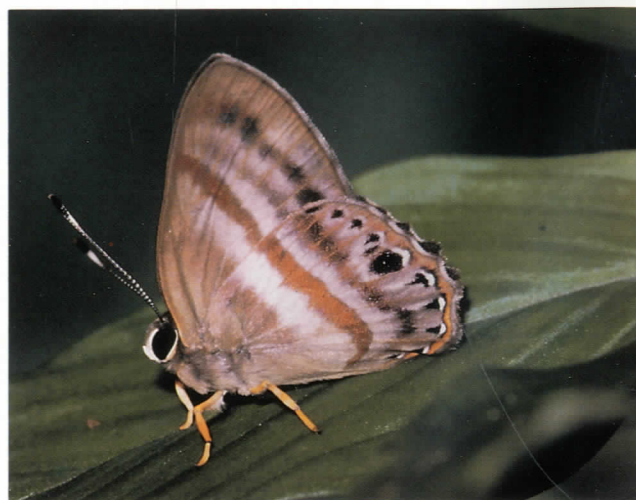


Fig. 19. *Eurybia lycisca*  
Fig. 20. *Euselasia* sp. *anica* group ♀

Fig. 21. *Eurybia halimede* (*Heliconius* right)  
Fig. 22. *Euselasia eutyclus* species group

Fig. 23. *Euselasia arbas serapis*  
Fig. 24. *Euselasia melaphaea*





Fig. 25. *Lasaia* sp.

Fig. 26. *Leomnias zygia egaensis*

Fig. 27. *Leucochimona* sp.

Fig. 28. *Mesosemia telegone* ♀

Fig. 29. *Mesosemia* sp. ♀

Fig. 30. *Mesosemia* sp.





Fig. 31. *Metacharis* sp. ♂  
Fig. 32. *Nymphidium azanoides*

Fig. 33. *Nymphidium leucosia*  
Fig. 34. *Parcella amarynthina*

Fig. 35. *Rhetus periander*  
Fig. 36. *Panara phereclus*





Fig. 37. *Rhetus periander*  
Fig. 38. *Sarota* sp. near *gyas*

Fig. 39. *Sarota* sp. near *gyas*  
Fig. 40. *Riodina lyssipus*

Fig. 41. *Sarota chrysus*  
Fig. 42. *Semomesia croesus*



Fig. 43. *Siseme aristoteles***Leucochimona** sp.

Tinalandia, Ecuador, 9 May 1990.

**Mesosemia telegone** (Boisduval)

Turrialba, Costa Rica, 14 May 1985.

**Mesosemia** sp.

Rondonia, Brazil, 11 Nov. 1989.

**Mesosemia** sp.

Rondonia, Brazil, 16 Mar 1991.

**Metacharis** sp.

Rondonia, Brazil, 11 Nov 1989. This species may be either

*Metacharis regalis* Butler or *M. nigrella* Bates.**Monethe albertus** Felder & Felder

Rondonia, Brazil, 4 Nov 1989.

**Nymphidium azanoides** Butler

Tinalandia, Ecuador, 6 May 1990.

**Nymphidium leucosia** (Hübner)

Rondonia, Brazil, 11 Nov 1989.

**Panara phereclus** (Linnaeus)

Rondonia, Brazil, 15 Mar 1991. Note the probably inborn atrophy of the left antenna, and the imprint of a bird bill on the lateral margin of the right forewing (going over the yellow band), as well as the symmetrical injury of the left forewing at the same location.

**Parcella amarynthina** (Felder & Felder)

Rondonia, Brazil, 9 Nov 1989.

**Rhetus periander** (Cramer)

Rondonia, Brazil, 22 Mar 1991.

**Riodina lysippus** (Linnaeus)

Explorama Lodge, Loreto, Peru, 20 Jul 1989.

**Sarota** sp. near **gyas** (Cramer)

Rondonia, Brazil, 21 Mar 1991.

**Sarota chrysus** (Stoll)

Tinalandia, Ecuador, 7 May 1990.

**Semomesia croesus**? (Fabricius)

Rondonia, Brazil, 3 Nov 1989.

**Siseme aristoteles** (Latreille)

Tinalandia, Ecuador, 10 May 1990.

Fig. 44. *Stalachtis phlegia***Stalachtis phlegia** (Cramer)

Rondonia, Brazil, 16 Mar 1991.

Fig. 44

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Fig. 27

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Fig. 38-39

Fig. 41

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Fig. 43