TROPICAL LEPIDOPTERA, 2(1): 43-51

SPHINGIDS IN PHOTOGRAPHY

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ABSTRACT.– Photographs (53) from life of mostly Neotropical and tropical Sphingidae, both flying and/or perching, are presented. Discussed and illustrated are 44 species. The larva of one species is illustrated.

KEY WORDS: *Adhemarius*, Africa, *Agrius*, Austria, *Basiothia*, Brazil, *Callionima*, *Cocytius*, Costa Rica, Ecuador, *Enyo*, *Erinnyis*, Ethiopian, *Eumorpha*, Europe, *Hemeroplanes*, *Hippotion*, *Hyles*, *Isognathus*, Kenya, *Macroglossum*, *Madoryx*, *Manduca*, Martinique, Mexico, Morocco, Neotropical, *Nyceryx*, *Oryba*, *Pachylia*, *Pachylioides*, Palearctic, *Perigonia*, Peru, *Protambulyx*, *Pseudosphinx*, Sphingidae, Venezuela, Yugoslavia, *Xylophanes*.

I have photographed sphingids on many occasions and in many places—e.g., in Europe, Africa, North and South America, and elsewhere–both in flight, as well as resting. Sphingids may often be found nectaring at flowers such as *Delphinium, Oenothera, Saponaria, Phlox, Lantana, Mirabilis, Solanum, Cirsium, Carduus, Echium,* etc. In the darkness, one is often forced to make only "blind shots" when seeing something moving in front of the lens. The help of another person informing the photographer that the object to be photographed is approaching the area under scrutiny can be quite useful: if one should remove his eye from the viewfinder, it is usually not possible to refocus quickly enough to photograph the flying moth. Reactions must be as quick as possible, but even then one usually makes a lot of "late shots" when one realizes that the moth has already disappeared from the area covered by the viewfinder prior to revoking the mental command to press the shutter release. Only a small percentage of attempts at photographing flying sphingids are, thus, successful. Of course, we have to use electronic flash. On the other hand, it is very easy to take photographs of resting specimens. In the tropics many sphingids are attracted by lights, and often after some initial restlessness, end up resting on the light sheet or other object. If the sheet is not moving due to wind, the photographer has enough time to focus and make repeated shots using different exposures (Krizek, 1989).

I am presenting a total of 53 photographs herein: 52 of adult moths and 1 of a larva. The majority are from various tropical areas such as Brazil, Costa Rica, Ecuador, Martinique, Mexico, and Kenya, with a few from Morocco and Europe. References to Sphingidae include D'Abrera (1986), Hodges (1971), and Pittaway (1983).

Macroglossum stellatarum Linnaeus Fig. 1, 3, 5

Southern Europe and northern Africa, to Japan. Ifrane, Morocco, 8 May 1987, nectaring at *Carduus* (Fig. 1 and 5). Fig. 3 at Dubrovnik, Yugoslavia, 31 Aug 1986, nectaring at *Lantana*.

Hyles lineata livornica Esper Fig. 2, 4, 6

Common in southern Europe and North Africa, to Asia Minor, thence to southern India and China. Pittaway (1990) considers this to be a distinct species (secundum D'Abrera, 1986). Marakech, Morocco, 22 Jun 1982, nectaring at *Delphinium*. Fig. 4 shows the inversion of the forewings during flight.

Hyles euphorbiae Linnaeus Fig. 7

Our specimens is *Hyles euphorbiae euphorbiae*, from the coast of Algeria, Tunisia, Europe to northern Turkey and northern Iran. Ifrane, Morocco, 8 May 1987, unusual nectaring while standing on *Carduus* during the daytime (Krizek, 1988).

Hippotion celerio Linnaeus Fig. 8

Moderate to high elevations throughout the Ethiopian, Oriental, and Australian regions and southern Europe. Aberdare Country Club, Kenya, 3 Jan 1985, nectaring at *Mirabilis*.

Eumorpha near **anchemolus** Cramer Fig. 9

Mexico to northern Argentina, Uruguay, and Trinidad. Monte Verde, Costa Rica, 17 May 1985.

Eumorpha anchemolus Cramer Fig. 10

Rondonia, 60km S. of Ariquemes, Brazil, 8 Nov 1989.

Eumorpha near **satellita** Linnaeus Fig. 11

Rancho Grande, Aragua, Venezuela, 24 Jun 1984.

Eumorpha satellita Linnaeus Fig. 12

Mexico to Argentina. Rondonia, Brazil, 9 Nov 1989.

Eumorpha labruscae Linnaeus Fig. 13

Southern USA to Argentina, Uruguay, and the West Indies. Explorama Inn, Loreto, Peru, 21 Jul 1989.

Oryba achemenides Cramer Fig. 14

Honduras to Bolivia, Amazonas, and northern Brazil. Explorama Inn, Loreto, Peru, 17 Jul 1989.

Isognathus tepuyensis (?) Lichy Fig. 15

Guyana - Venezuela border region to Brazil. Rondonia, Brazil, 8 Nov 1989.

Isognathus rimosa Grote Fig. 16

Southern USA to central Brazil. Cancun, Mexico, 26 Mar 1979.

Xylophanes porcus Hübner Fig. 17

Florida to southern Brazil. Rondonia, Brazil, 10 Nov 1989.

Xylophanes chiron Drury Fig. 18

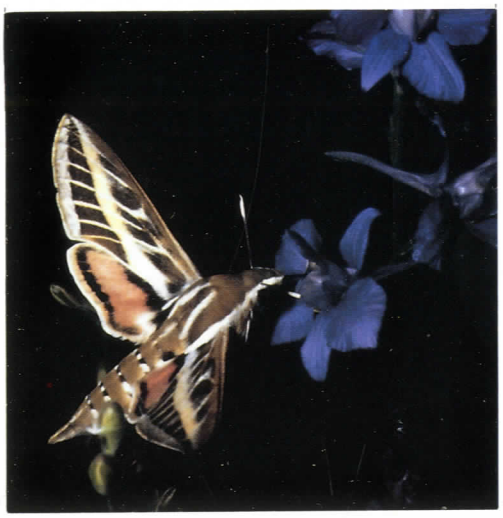
Our specimen is *Xylophanes chiron nechus* Cramer; Mexico to northern Argentina. Rondonia, Brazil, 10 Nov 1989.

Xylophanes undata Rothschild & Jordan Fig. 19

Type locality is Peru. Tinalandia, Ecuador, 8 May 1990.

Xylophanes anubus Cramer Fig. 20

Mexico to southern Brazil. Tinalandia, Ecuador, 6 May 1990.



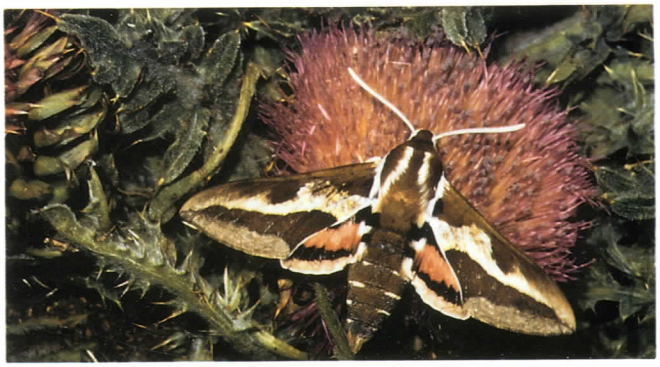
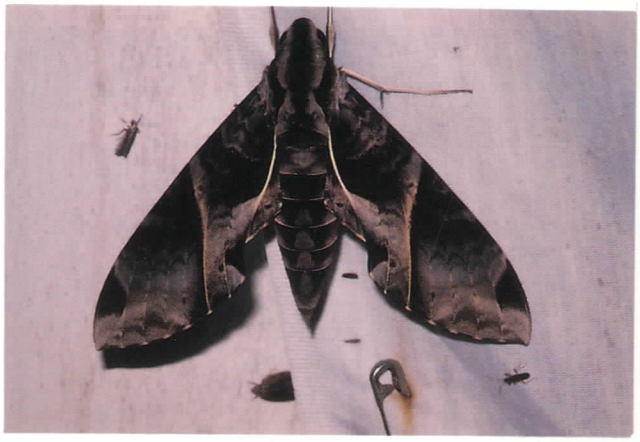


Fig. 1. *Macroglossum stellatarum*
Fig. 2. *Hyles lineata livornica*
Fig. 3. *Macroglossum stellatarum*
Fig. 4. *Hyles lineata livornica*
Fig. 5. *Macroglossum stellatarum*
Fig. 6. *Hyles lineata livornica*
Fig. 7. *Hyles euphorbiae*
Fig. 8. *Hippotion celerio*

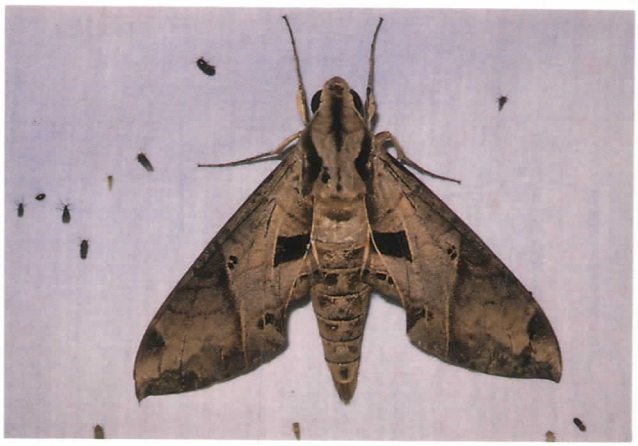
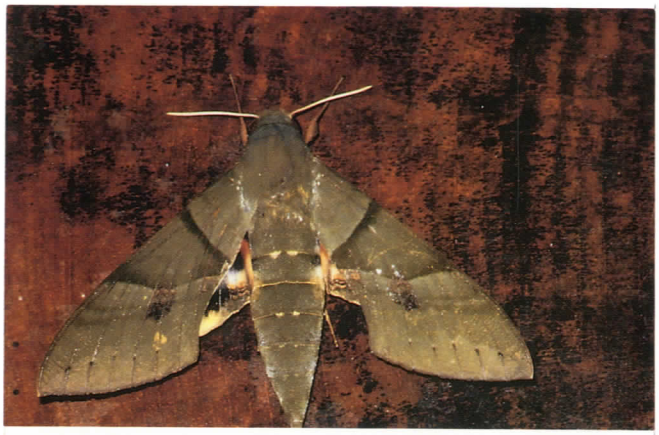
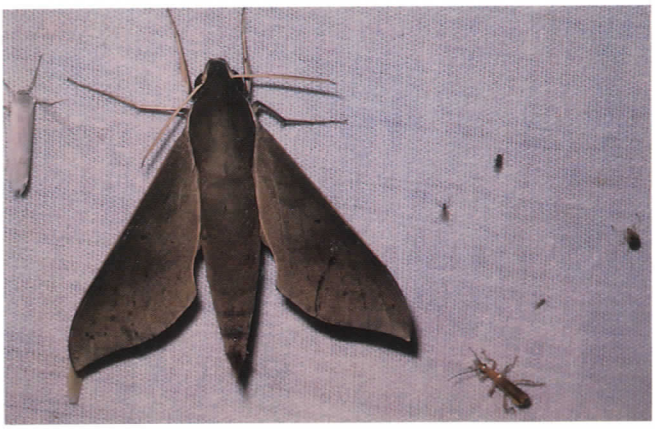




Fig. 9. *Eumorpha* nr. *anchemolus*
Fig. 10. *Eumorpha anchemolus*
Fig. 11. *Eumorpha* nr. *satellita*
Fig. 12. *Eumorpha satellita*
Fig. 13. *Eumorpha labruscae*
Fig. 14. *Oryba achemenides*
Fig. 15. *Isognathus tepuyensis*?
Fig. 16. *Isognathus rimosa* ♀



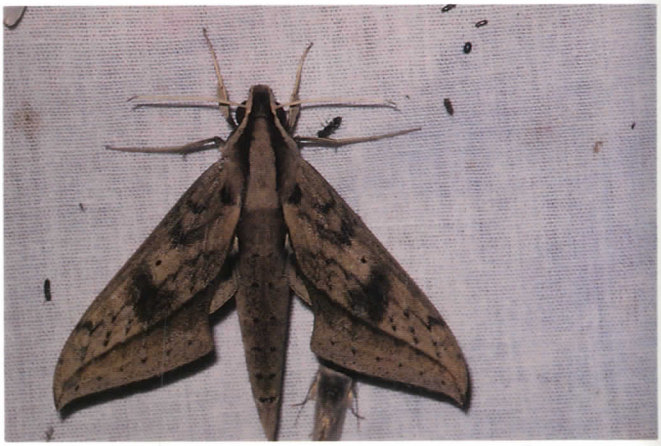





Fig. 17. *Xylophanes porcus*
Fig. 18. *Xylophanes chiron*
Fig. 19. *Xylophanes undata*
Fig. 20. *Xylophanes anubus*
Fig. 21. *Xylophanes* nr. *tersa*
Fig. 22. *Xylophanes titana*
Fig. 23. *Xylophanes germen*
Fig. 24. *Xylophanes* nr. *ceratomioides*

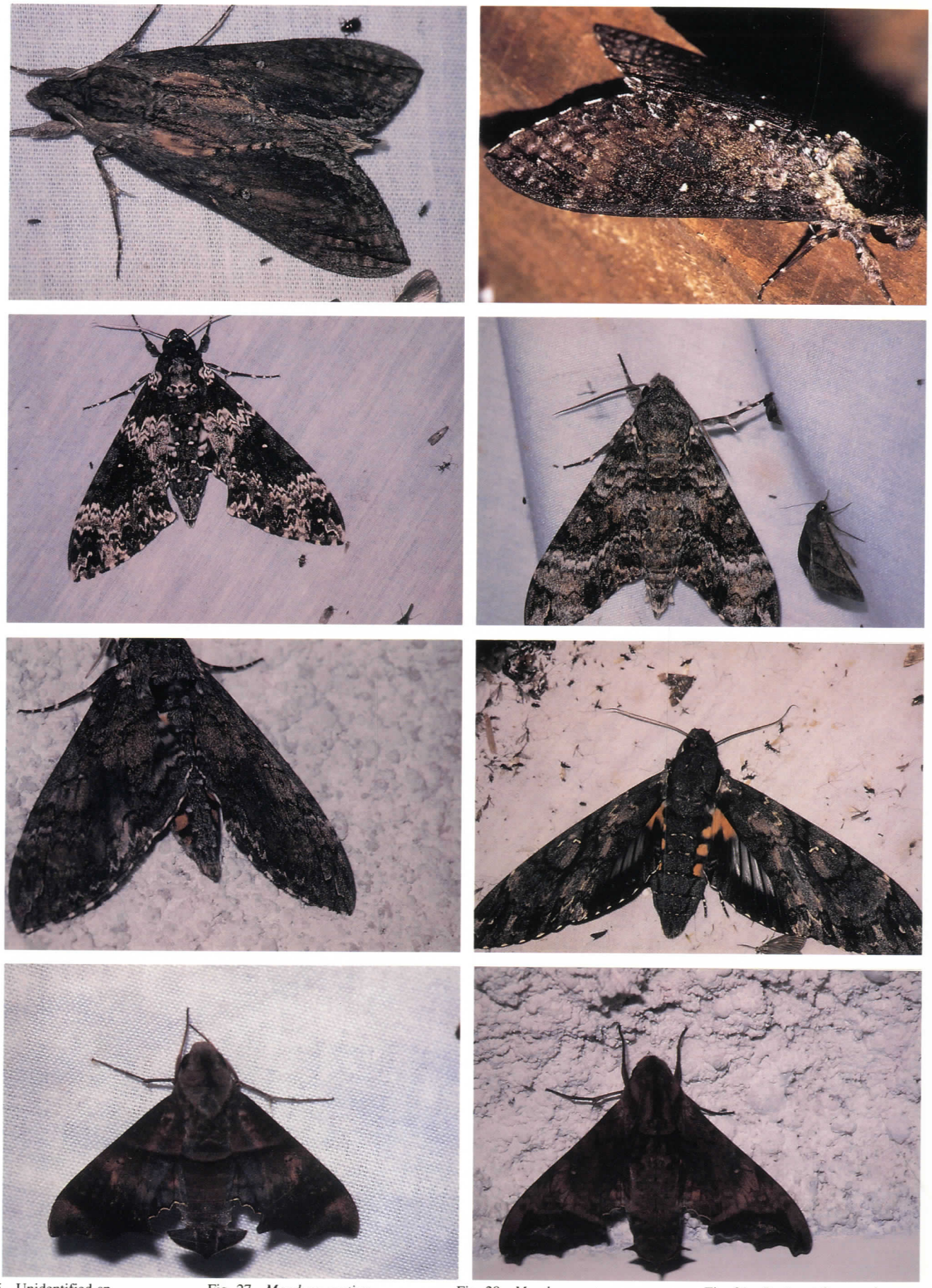
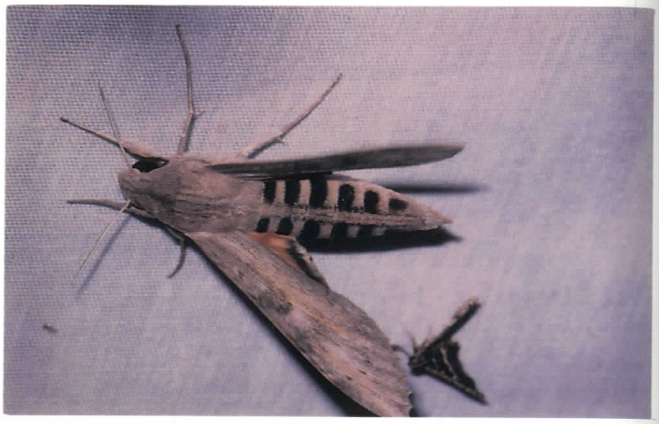
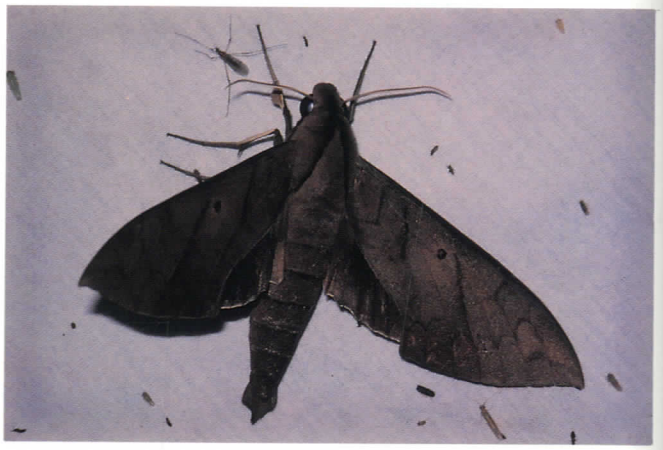


Fig. 25. Unidentified sp.
Fig. 26. *Manduca occulta*
Fig. 27. *Manduca rustica*
Fig. 28. Unidentified sp.
Fig. 29. *Manduca sexta*
Fig. 30. *Cocytius antaeus*
Fig. 31. *Perigonia*? nr. *stulta*
Fig. 32. *Nyceryx riscus*





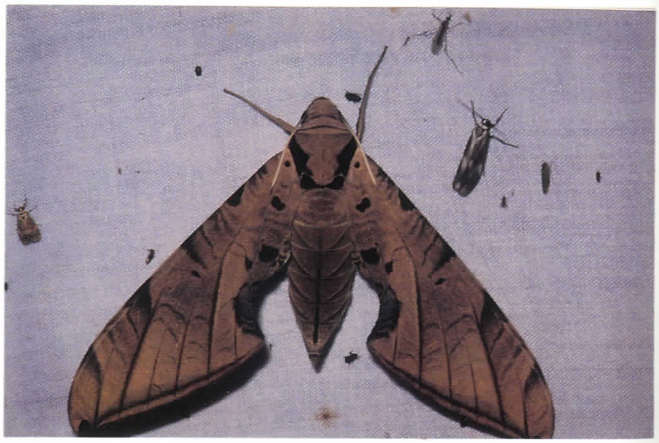


Fig. 33. *Erinnyis ello* ♂
Fig. 34. *Erinnyis ello* ♀
Fig. 35. *Erinnyis alope*
Fig. 36. *Pachylia darceta*
Fig. 37. *Pachylioides resumens*
Fig. 38. *Pachylia ficus*
Fig. 39. *Pseudosphinx tetrio* ♀
Fig. 40. *Protambulyx strigilis*

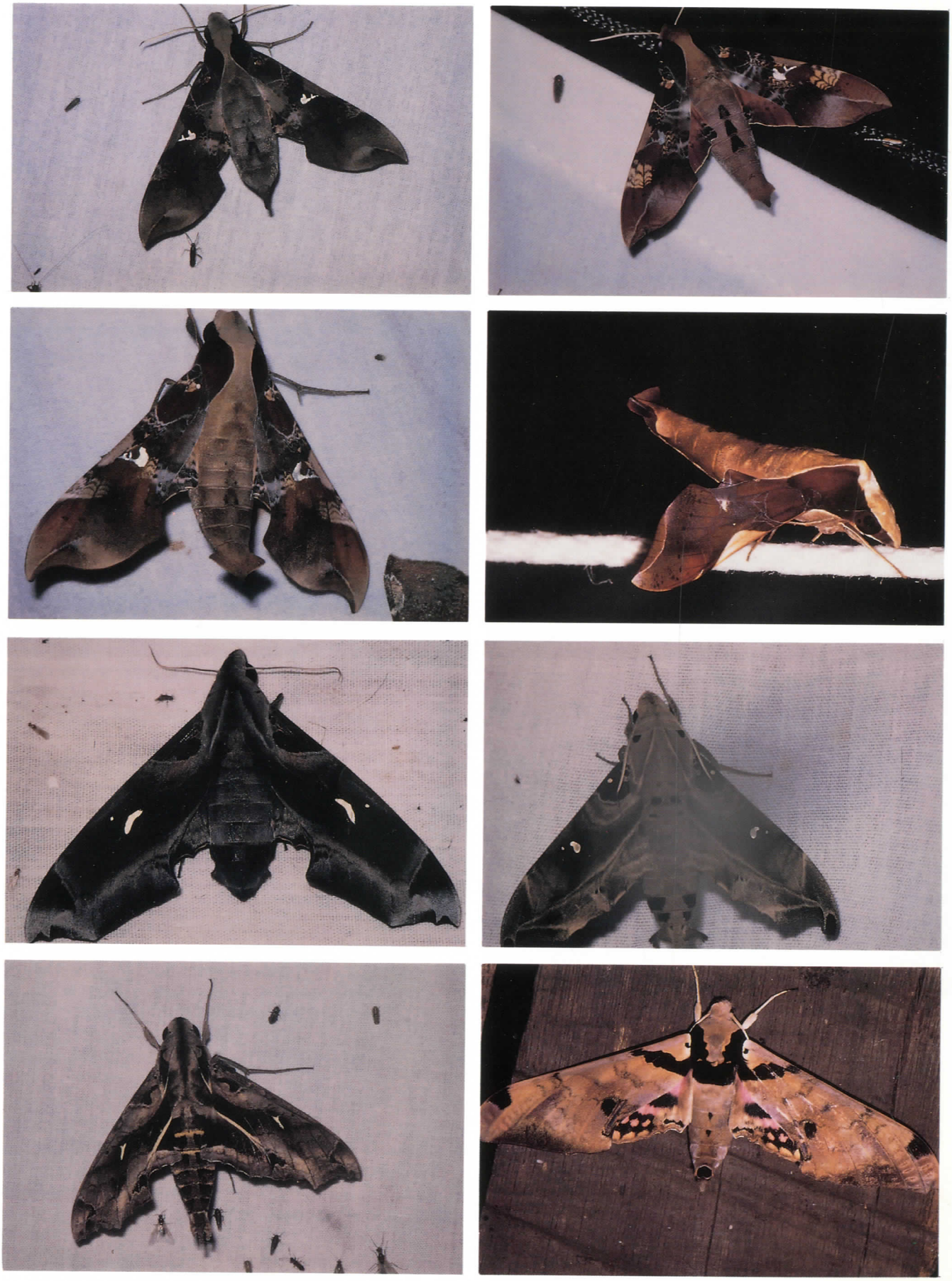


Fig. 41. *Callionima* sp.
Fig. 42. *Callionima inuus*
Fig. 43. *Callionima falcifera*
Fig. 44. *Callionima nomius*
Fig. 45. *Madoryx pluto*
Fig. 46. *Madoryx bubastus*
Fig. 47. *Hemeroplanes triptolemus*
Fig. 48. *Adhemarius gannascus*

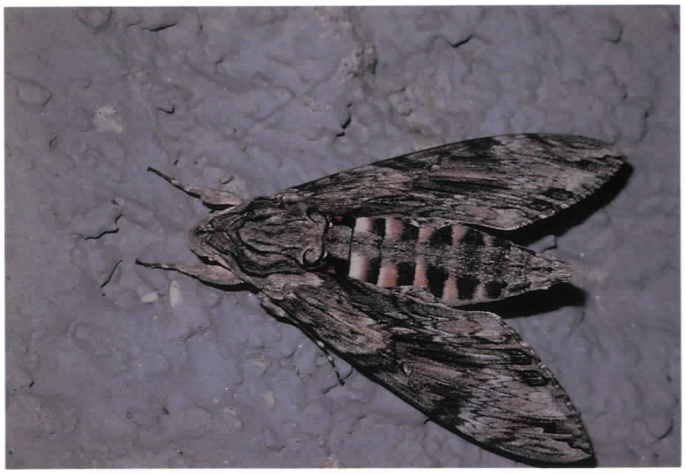


Fig. 49. *Enyo* sp.
Fig. 50. *Basiothia medea*
Fig. 51. *Agrius convolvuli* ♂
Fig. 52. *Agrius convolvuli* ♂
Fig. 53. *Pseudosphinx tetrio*, mature larva

Xylophanes near **tersa** Drury Fig. 21
Southern Canada to Argentina. Tinalandia, Ecuador, 8 May 1990.

Xylophanes titana Druce Fig. 22
Mexico to southern Brazil. Rondonia, Brazil, 8 Nov 1989.

Xylophanes germen Schaus Fig. 23
Mexico to Ecuador. Monte Verde, Costa Rica, 17 May 1985.

Xylophanes near **ceratomioides** Grote & Robinson Fig. 24
Mexico to southern Brazil. Tinalandia, Ecuador, 8 May 1990.

Unknown sp. Fig. 25
Tinalandia, Ecuador, 8 May 1990.

Manduca occulta Rothschild & Jordan Fig. 26
Arizona to Central America. Monte Verde, Costa Rica, 18 May 1985.

Manduca rustica Fabricius Fig. 27
New York to Uruguay. Rondonia, Brazil, 8 Nov 1989.

Unknown sp. Fig. 28
Tinalandia, Ecuador, 10 May 1990.

Manduca sexta Linnaeus Fig. 29
North and South America, Old World. Puerto Vallarta, Mexico, 25 Feb 1988.

Cocytius antaeus Drury Fig. 30
Our specimen is *Cocytius antaeus medor* Cramer, from southern USA to Uruguay. Tinalandia, Ecuador, 10 May 1990.

Perigonia near **stulta** Herrich-Schäffer Fig. 31
Guatemala to Brazil. Tinalandia, Ecuador, 6 May 1990.

Nyceryx riscus Schaus Fig. 32
Mexico to central Brazil. Puerto Vallarta, Mexico, 20 Feb 1988.

Erinnyis ello Linnaeus Fig. 33-34
Canada to Argentina. Rondonia, Brazil, 3 Nov 1989.

Erinnyis alope Drury Fig. 35
Southern USA to northern Argentina. Rondonia, Brazil, 4 Nov 1989.

Pachylia darceta Druce Fig. 36
Panama to Amazonas. Rondonia, Brazil, 4 Nov 1989.

Pachylioides resumens Walker Fig. 37
Southern USA to northern Argentina. Rondonia, Brazil, 9 Nov 1989.

Pachylia ficus Linnaeus Fig. 38
Southern USA to southern Brazil. Rondonia, Brazil, 5 Nov 1989.

Pseudosphinx tetrio Linnaeus Fig. 39, 53
Southern USA to Paraguay. Adult is from Martinique, West Indies, 27 Aug 1978 (reared from larva on *Plumeria*). Other larva (Fig. 53) is from Rondonia, Brazil, 10 Nov 1989.

Protambulyx strigilis Linnaeus Fig. 40
Southern USA to Argentina. Tinalandia, Ecuador, 8 May 1990.

Callionima sp. Fig. 41
Rondonia, Brazil, 7 Nov 1989.

Callionima inuus Rothschild & Jordan Fig. 42
Mexico to southern Brazil. Rondonia, Brazil, 4 Nov 1989.

Callionima falcifera Gehlen Fig. 43
Costa Rica to Venezuela. Monte Verde, Costa Rica, 17 May 1985.

Callionima nomius Walker Fig. 44
Mexico to southern Brazil. Rondonia, Brazil, 7 Nov 1990.

Madoryx pluto Cramer Fig. 45
Mexico to southern Brazil. Tinalandia, Ecuador, 9 May 1990.

Madoryx bubastus Cramer Fig. 46
Venezuela to southern Brazil. Tinalandia, Ecuador, 10 May 1990.

Hemeroplanes triptolemus Cramer Fig. 47
Mexico to Amazonas. Rondonia, Brazil, 4 Nov 1989.

Adhemarius gannascus Stoll Fig. 48
Mexico to Brazil. Monte Verde, Costa Rica, 18 May 1985.

Enyo sp. Fig. 49
Rondonia, Brazil, 7 Nov 1989.

Basiothia medea Fabricius Fig. 50
Ethiopian region. Aberdare Country Club, Kenya, 4 Jan 1985.

Agrius convolvuli Linnaeus Fig. 51-52
Old World. Badgastein, Austria (about 900m), 21 Aug 1986.

Pseudosphinx tetrio Linnaeus Fig. 53
Rondonia, Brazil, 10 Nov 1989 [see Fig. 39].

ACKNOWLEDGMENTS

I thank Prof. Thomas Emmel for all of his professional help and advice to me during those many entomological trips led by him to Neotropical areas. I also would like to express my greatfulness to Dr. John Heppner for his generous editorial help. I am also extremely indebted to all the numerous entomologists, participants of the Emmel-Holbrook trips (Brazil, Ecuador, Peru, Venezuela), who so kindly allowed me to photograph the sphingids resting on their illuminated sheets. Without their kind cooperation and permission, the majority of the photographs could not have been made.

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