

Notes on Ecuadorian hawkmoths

(Lepidoptera, Sphingidae)

by

LUIGI RACHELI & TOMMASO RACHELI

received 27.VI.1994

Abstract: Following two recent field trips to Ecuador, *Stolidoptera tachasara*, *Xylophanes media* and *Xylophanes nabucodonosor* are reported for the first time for the country. The presence of *Xylophanes ockendeni* is confirmed and new distributional data are added to *Protambulyx eurycles*, *Adhemarius sexoculata*, *Erynnis lassauxi*, *Oryba achemenides*, *Hemeroplanes triptolemus*, *Nyceryx hyposticta*, *Perigonia stulta*, *Perigonia lusca*, *Xylophanes pyrrius*, *Xylophanes thyelia*.

During april, and october–november 1993 several nights were spent collecting at light traps, especially in the premontane area of the Napo region known as Cordillera de Huacamayo, approx. 40 km NE Tena, and around the watershed of the road leading to the Baeza valley at altitudes between 1800 and 2200 m, other than in various localities.

Some of the species collected are interesting and improve the knowledge of the composition and distribution of Ecuadorian Sphingidae.

Collecting sites

- 1 Pichincha, Alluriquin, 800 m
- 2 Pichincha, Tandapi, 1460 m
- 3 Pichincha, Puerto Quito, 250 m
- 4 Cañar, El Triunfo, 500 m
- 5 Napo, 7 km S Cosanga, 2250 m
- 6 Napo, Cordillera de Huacamayo, S. Elena, 1800 m
- 7 Napo, Puerto Misahualli, 450 m
- 8 Napo, Puerto Napo, 500 m
- 9 Napo, Santa Rosa, 800 m
- 10 Tunghuranua, Rio Topo, 1200 m
- 11 Morona-Santiago, Los Tayos, 800 m
- 12 Morona-Santiago, Macas, 1070 m

List of species

Protambulyx eurycles (HERRICH-SCHÄFFER, 1854)

Remarks: This species is distributed from Mexico to Paraguay and Argentina (SCHREIBER, 1978). RACHELI & RACHELI (1994) have reported specimens from Coca and Puerto Quito, in the Museum de la Universidad Catolica, Quito and it is now also reported from S. Elena, Cordillera de Huacamayo, Napo. *Protambulyx eurycles* is probably occasional in Ecuador on

both sides of the Andes. According to YEPEZ (1978) it is frequent in the neotropical region.
Material examined: 1 ♂, Napo, Cordillera de Huacamayo, S. Elena, 1800 m, 22.X.1993.

Amplipterus sexoculata (GROTE, 1867)

Remarks: The range of this widespread species is from Venezuela, Colombia, Ecuador, to Peru and Bolivia (SCHREIBER, 1978), especially at high elevations (D'ABRERA, 1986), but apparently it is not a common species in Ecuador.

Material examined: 2 ♂♂, 1 ♀, Napo, Cosanga 7 km SE, 2250 m, 22.X.1993.

Erynnis lassauxi (BOISDUVAL, 1859)

Remarks: Widespread from southern U.S.A. to Argentina (SCHREIBER, 1978). As previously noted (RACHELI & RACHELI, 1994), this is an occasional species reported by CAMPOS (1931), as morph *omphaleae* for Guayaquil, Durán and Loja, and as morph *merianae* for Loja. It is presumed that this species is widely distributed in Ecuador.

Material examined: 1 ♂, Morona-Santiago, Macas, 1070 m, 23./24.IV.1993; 1 ♂, Napo, Puerto Misahualli, 450 m, VIII.1993, leg. G. CLARKE MACINTYRE.

Oryba achemenides (CRAMER, 1780)

Remarks: The range of this species extends from Honduras to northern Brazil and to Bolivia (HAXAIRE & RASPLUS, 1987). The presence of this species is confirmed in Ecuador, already reported by RACHELI & RACHELI (1994) and by CAMPOS (1931) for Guayaquil and Durán.

Material examined: 1 ♂, Napo, Puerto Misahualli, 450 m, 17./21.IV.1993; 1 ♂, Napo, Puerto Misahualli, 450 m, 18./20.X.1993.

Hemeroplanes triptolemus (CRAMER, 1780)

Remarks: This widespread species ranges from Mexico to Peru, Brazil and Argentina (SCHREIBER, 1978). In Ecuador the species was reported for Paramba, 3500 ft., V.1897, dry season, ROSENBERG leg. (ROTHSCHILD & JORDAN, 1903), and for the Loja area (CAMPOS, 1931). This is an uncommon species which is present on both sides of the Andes.

Material examined: 1 ♂, Napo, Puerto Misahualli, 450 m, 17./21.IV.1993; 1 ♂, Pichincha, Alluriquin, 900 m, 15.X.1993.

Stolidoptera tachasara (DRUCE, 1888)

Remarks: The species is reported for the first time in Ecuador, and it was collected at S. Elena, Cordillera de Huacamayo, Napo. SCHREIBER (1978) reports the species from Mexico to Venezuela and Peru. In Central America it is known for a few localities in Costa Rica at Monteverde, Las Cruces and Puntarenas (HABER, 1983; RACHELI & RACHELI, 1992). MILLER & VEDICTOFF (1992), describing once again the rare *Protaleuron rodogaster*, report on the distribution of *S. tachasara* as it was given by D'ABRERA (1986) from Mexico to Venezuela.

Material examined: 2 ♂♂, Napo, Cordillera de Huacamayo, S. Elena, 1800 m, 22.X.1993; 1 ♂, Napo, Cordillera de Huacamayo, S. Elena, 1800 m, 5.XI.1993.

Nyceryx hyposticta (FELDER, 1874)

Remarks: The species is known from Venezuela to Bolivia (SCHREIBER, 1978). It was reported for Ecuador from Zamora (ROTHSCHILD, 1919) and from the Loja area (CAMPOS, 1931). Although scarce, it seems to be widespread in Oriente.

Material examined: 1 ♂, Napo, Cordillera de Huacamayo, S. Elena, 1800 m, 22.X.1993. 5 ♂♂, Napo, Cosanga, 7 km SE, 2250 m, 22.X.1993. 1 specimen from Macas in coll. Museo Universidad Catolica, Quito.

Perigonia stulta HERRICH-SCHÄFFER, 1854

Remarks: This is a wide ranging neotropical species from Venezuela to Bolivia and Brazil (SCHREIBER, 1978). In Ecuador the species was reported from Paramba, 3500 ft., IV.1897, dry season, ROSENBERG leg. (ROTHSCHILD & JORDAN, 1903), and from the Loja area (CAMPOS, 1931).

Material examined: 1 ♂, Pichincha, Tandapi, 1460 m, 26.IV.1993; 2 ♂♂, 1 ♀, Napo, Cordillera de Huacamayo, S. Elena, 1800 m, 22.X.1993.

Perigonia lusca ilus BOISDUVAL, 1870

Remarks: Although widespread in the neotropics, this species is occasional in Ecuador and reported only from Guayaquil (CAMPOS, 1931). It is confirmed on both sides of the Andes.

Material examined: 1 ♂, Napo, Puerto Misahualli, 450 m, 26./31.X.1993; 2 ♂♂, Pichincha, Alluriquin, 900 m, 15.X.1993.

Xylophanes fusimacula (FELDER, 1874)

Remarks: SCHREIBER (1978) reports this species for Guiana, Venezuela, Colombia, Ecuador, Peru, Bolivia and western Brazil. HAXAIRE & RASPLUS (1987) confirmed the species for French Guiana.

Material examined: 2 ♂♂, Napo, Puerto Misahualli, 450 m, 17./21.IV.1993; 2 ♂♂, Napo, Puerto Misahualli, 450 m, 18./20.X.1993.

Xylophanes zurcheri (DRUCE, 1894)

Remarks: The species is distributed from Messico, to Colombia and Ecuador (BEUTELSPACHER & DE LA MAZA, 1975; SCHREIBER, 1978; RACHELI & RACHELI, 1994). It is reported by SEIFERT (1974) from Turrialba, and by HABER (1983) from Turrialba and La Selva, in Costa Rica. Apparently the species in Ecuador is distributed along the western side only.

Material examined: 1 ♂, Cañar, El Triunfo, 500 m, III.1991; 1 ♂, Pichincha, Alluriquin; 1 ♂, Pichincha, Puerto Quito, in coll. Universidad Catolica, Quito.

Xylophanes undata ROTHSCCHILD & JORDAN, 1903

Remarks: SCHREIBER (1978) reported this species from Central America, to Colombia, Ecuador, Peru, Bolivia and northern Brazil. In Costa Rica is known from La Selva, Volcàn Tenorio and Corcovado National Park (HABER, 1983). It is not a common species in Ecuador, but widespread on the eastern side up to 1200 m.

Material examined: 2 ♂♂, Napo, Puerto Misahualli, 450 m, 17./21.IV.1993; 2 ♂♂, Napo, Santa Rosa, 800 m, IV.1993, leg. O. VELASTEGUI; 1 ♂, Tunghurahua, Rio Topo, 1200 m, VI.1993, leg. G. VELASTEGUI; 4 ♂♂, Morona-Santiago, Los Tayos, in coll. Universidad Catolica, Quito.

Xylophanes media (ROTHSCHILD & JORDAN, 1903)

Remarks: The species is known from Peru, Bolivia, Venezuela and French Guiana (SCHREIBER, 1978; HAXAIRE & RASPLUS, 1987). This species is reported here from Ecuador for the first time.

Material examined: 1 ♂, Napo, Puerto Misahualli, 450 m, 17./21.IV.1993; 1 ♂, Napo, Puerto Napo, 550 m, 18./20.X.1993; 1 ♂, Napo, Puerto Misahualli, 450 m, 26./31.X.1993.

Xylophanes ockendeni ROTHSCHILD, 1904

Remarks: This species was known as an endemic of SE Peru, Santo Domingo, Carabaya (ROTHSCHILD, 1904; SCHREIBER, 1978; D'ABRERA, 1986). *X. macasensis* was described by CLARK (1922) from the male holotype from Macas, Ecuador which is here considered as a subspecies of *X. ockendeni*. The range of this species is therefore from south Peru to northern Ecuador.

Material examined: 3 ♂♂, Napo, Cordillera de Huacamayo, S. Elena, 1800 m, 5.XI.1993.

Xylophanes nabucodonosor OBERTHÜR, 1904

Remarks: This species is known from Central America, to Colombia, Peru and Bolivia, but the distribution in Ecuador is still fluid. Recently HAXAIRE (1991), describing *X. schwartzi* from Ecuador, comprises in this species-group *X. crotonis*, *X. aristor*, *X. rhodochlora*, *X. sarae*, *X. nabucodonosor*, which is in need of revision. *X. crotonis* is scarce on the eastern side near Cosanga, Napo, while it is abundant but localized at Tandapi, Pichincha. In this latter locality only three specimens of *X. nabucodonosor* in two years during three different months. The colour pattern of *X. crotonis* is very variable, most of the specimens from Tandapi are dull olive green but there are intermediates which tend to the emerald green colouration of *X. nabucodonosor*. The specimens of *X. nabucodonosor* from Cosanga and S. Elena Huacamayo, Napo, are more brilliant green if compared with Tandapi specimens.

Material examined: 1 ♂, Pichincha, Tandapi, 1460 m, 8./12.VI.1992; 1 ♂, Pichincha, Tandapi, 1460 m, 26.IV.1993; 2 ♂♂, Napo, Cordillera de Huacamayo, S. Elena, 1800 m, 22.X.1993. 3 ♂♂, Napo, Cosanga, 7 km SE, 2250 m, 22.X.1993; 1 ♀, Pichincha, Tandapi, 1500 m, 15.X.1993.

Xylophanes pyrrhus ROTHSCHILD & JORDAN, 1906

Remarks: A common species from Venezuela to Bolivia and northern Brazil (SCHREIBER, 1978). In Ecuador the species ranges on both sides of the Andes above 1400 m.

Material examined: 1 ♂, Pichincha, Tandapi, 1460 m, 15.II.1993, leg. ALDAS; 2 ♂♂, Napo, Cordillera de Huacamayo, S. Elena, 1800 m, 22.X.1993; 2 ♂♂, 1 ♀, Napo, Cosanga, 7 km SE, 2250 m, 22.X.1993; 1 ♂, Sucumbios, El Reventador, 1500 m, in coll. Museo Universidad Católica, Quito.

Xylophanes thyelia (LINNAEUS, 1758)

Remarks: According to HAXAIRE & RASPLUS (1987) this is a widespread species from Mexico to Paraguay.

Material examined: 2 ♂♂, Napo, Puerto Misahualli, 450 m, 17./21.IV.1993; 1 ♂, Napo, Puerto Misahualli, 450 m, 18./20.X.1993;

References

BEUTELSPACHER, B. C. R. & J. R. DE LA MP 6AZA (1975): New records of Lepidoptera from Mexico (Sphingidae, Saturniidae). – J. Lep. Soc. **29**: 128–129.

- CAMPOS, R. F. (1931): Catalogo preliminar de los Lepidopteros del Ecuador. Segunda parte, Heteroceros. – Rev. Colegio nac. V. Rocafuerte **13**(45): 3–162.
- CLARK, P. B. (1922): Twenty-five new Sphingidae. – Proc. New Engl. zool. Club **8**: 1–23.
- D'ABRERA, B. (1986): Sphingidae Mundi. – E. W. Classey, Ltd., Faringdon, Oxon, England. 226 pp.
- HABER, W. A. (1983): Checklist of Sphingidae, pp. 645–650. In: D. E. JANZEN (ed.), Costa Rican Natural History. – Univ. Chicago Press, Chicago.
- HAXAIRE, J. (1991): Description d'un nouveau Sphinx equatorien *Xylophanes schwartzi* (Lep. Sphingidae). – Bull. Soc. ent. Fr. **96**(3): 291–293.
- HAXAIRE, J. & J. Y. RASPLUS (1987): Contribution a la connaissance des Sphingidae de Guyane Française. – Bull. Soc. ent. Fr. **91**: 275–285, **92**: 45–55.
- MILLER, J. Y. & N. VENEDICTOFF (1992): Redescription of *Protoleuron rhodogaster* (Sphingidae) an uncommon neotropical moth. – J. Lep. Soc. **46**: 73–75.
- RACHELI, T. & L. RACHELI (1992): Costa Rican sphingid moths diversity (Lepidoptera, Sphingidae). – Atalanta **23**: 483–489.
- RACHELI, T. & L. RACHELI (1994): Observations on ecuadorian hawkmoths. – Atalanta **25**: 261–273.
- ROTHSCHILD, W. L. (1904): New Sphingidae. Novit. zool. **11**: 435–440.
- ROTHSCHILD, W. L. (1919): List of types of Lepidoptera in the Tring Museum. I. Sphingidae. – Novit. zool. **26**: 193–251.
- ROTHSCHILD, W. L. & K. JORDAN (1903): A revision of the Lepidopterous family Sphingidae. – Nov. zool. **9** (Suppl.): cxxxv, 972 pp., 67 pls.
- SCHREIBER, H. (1978): Dispersal centres of Sphingidae (Lepidoptera) in the Neotropical region. – Biogeographica **10**: 1–195. Junk, The Hague-Boston.
- SEIFERT, R. P. (1974): The Sphingidae of Turrialba, Costa Rica. – J. New York ent. Soc. **82**: 45–56.
- YEPEZ, F. F. (1978): Lista preliminar de los Sphingidae (Lepidoptera) de San Carlos de Rio Negro, Territorio Federal Amazonas, Venezuela. – Bol. ent. venez. (N.S.) **1**: 21–24.

address of the authors

LUIGI & TOMMASO RACHELI
Via G. Valmarana n. 66
I-00139 Roma
Italy