

PROVISIONAL CHECK-LIST OF THE BUTTERFLIES
OF SAO TOME AND PRINCIPE ISLANDS

Butterflies of Principe Island

Tomasz PYRCZ *

* Dembowskięgo 23 m 6, 02-784 Warszawa, Polęgne.

Explanation of letters and numbers:

Localities, Sao Tomę: A - Bombaim, B - Agua-Joao, C - Agua Izę D - Laguna Azul.
Principe: I - Santo Antonio, K - Terreiro Velho.

Status:

- 1 - endemic species,
2 - endemic subspecies,
3 - local form of unestablished status,
4 - population showing no particular features comparing to the continental forms,
b - species occurring on both islands,
a - species occurring on one of the islands,
x - population of one island different than that of the other island

species	locality	status
1. <i>Papilio demodocus</i> Esp.....	I,K	4b
2. <i>Papilio dardanus</i> f. <i>sulphureus</i> * Brown	-	4a
3. <i>Graphium leonidas santamarthae</i> Le Cerf	K	2bx
4. <i>Appias epaphia epaphia</i> Cr.	I,K	4b
5. <i>Leptosia nupta nupta</i> * Btl.....	I,K	3bx
6. <i>Catopsilia florella</i> F.....	I,K	4a
7. <i>Eurema hecabe solifera</i> Btl.	I,K	4a
8. <i>Eurema senegalensis</i> Bsd.	K	4b
9. <i>Mylothris rebinaf. arctata</i> * Tbt.	-	4b
<i>Mylothris rebinaf. semifusca</i> * Tbt.	-	4b
10. <i>Bicyclus vulgaris</i> Btl.....	I,K	4b
11. <i>Melanitis leda helena</i> Wstw.	K	4b
12. <i>Bemalistes alcinoe racaji</i> n.ssp.	K	2a
13. <i>Acraea zetes zetes</i> L.	K	4bx
14. <i>Acraea medea</i> Cr.....	I,K	1a
15. <i>Acraea pharsalus carmen</i> n.ssp.	K,	2a
16. <i>Acraea lycoa mediafra</i> Stoneham.....	K	4b
17. <i>Acraea jodutta jodutta</i> * F.	I,K	3bx
18. <i>Acraea eponina</i> * Cr.....	-	4b
19. <i>Acraea alciope</i> * Hew.	-	4b
20. <i>Acraea quirina quirina</i> F.....	K	4b
21. <i>Danaus chrysippus aegyptus</i> * Schreber	I	3b
22. <i>Leptotes pirithous pirithous</i> L.....	K	4b
23. <i>Zizeeria knysna</i> Trim.	K	4b
24. <i>Lampides boeticus</i> L.....	K	4a

25. <i>Spalgis lemolea</i> Dr.....	K	4a
26. <i>Virachola antalus</i> Hopff.	K	4b
27. <i>Virachola lorisona lorisona</i> * Hew.	K	4a
28. <i>Eicochrysops hippocrates</i> F.....	K	4b
29. <i>Euchrysops malathana</i> Bsd.	K	4b
30. <i>Euchrysops osiris</i> Hopff.....	K	4a
31. <i>Phalanta eurytis eurytis</i> Dbd.	I,K	4b
32. <i>Kallima cymodoce</i> Cr.....	I,K	4a
33. <i>Junonia oenone oenone</i> L.	I,K	4b
34. <i>Junonia terea terea</i> Drury.....	K	4a
35. <i>Junonia pelarga</i> F.....	K	4a
36. <i>Sallya amulia amulia</i> Cr.	K	4a
37. <i>Cyrestis camillus camillus</i> F.....	I,K	4a
38. <i>Neptis eltringhami</i> * Joy. & Tbt.	K	1bx
39. <i>Hypolimnna misippus</i> L.....	I	4b
40. <i>Hypolimnna dubius dubius</i> * Pal.....	K	4bx
41. <i>Hypolimnna salmacis</i> * Drury.....	-	3bx
42. <i>Pseudacraea gamae</i> Joy. & Tbt.....	K	1a
43. <i>Charaxes candiope candiope</i> God.....	K	4bx
44. <i>Charaxes lemosi</i> * Joy. & Tbt.....	K	1a
45. <i>Charaxes barnsi</i> Joy. & Tbt.	K	1a

Butterflies of Sao Tome Island

1. <i>Papilio demodocus</i> Esp.....	A,B,C	4b
2. <i>Papilio bromius furvus</i> Joy. & Tbt.....	A,B	2a
3. <i>Graphium leonidas sanctithomae</i> Le Cerf	D	2bx
4. <i>Appias epaphia epaphia</i> Cr.	C,D	4b
5. <i>Appias phaola</i> * Dbd.	-	4a
6. <i>Leptosia nupta</i> * Btl.	A,B,C	3bx
7. <i>Leptosia medusa</i> * Cr.	B	4b
8. <i>Eurema senegalensis</i> Bsd.....	B	4b
9. <i>Mylothris nubila nubila</i> * Mosch.	-	4a
10. <i>Mylothris sulphurea</i> * Aur.....	-	4a
11. <i>Mylothris rebinaf. arctata</i> * Tbt.	C	4b
<i>Mylothris rebinaf. semifusca</i> * Tbt.....	D	4b
12. <i>Dixeia piscicollis</i> * Pinhey	C,D	1a
13. <i>Melanitis leda helena</i> Westw.	A,B,C,D	4b
14. <i>Bicyclus vulgaris</i> * Btl.	-	4b
15. <i>Bicyclus dorothea concolor</i> * Cond	-	4a
16. <i>Bicyclus funebris</i> * Guęrin	-	4a
17. <i>Bicyclus sanaos</i> * Hew.....	-	4a
18. <i>Bicyclus italus</i> * Hew.....	-	4a
19. <i>Libythea labdaca labdaca</i> Westw.	A,D	4a
20. <i>Acraea niobe</i> Sh.....	A,B	1a
21. <i>Acraea newtoni</i> Sh.....	A	1a
22. <i>Acraea insularis</i> Sh.	A	1a
23. <i>Acraea zetes annabona</i> * D'Abrera	A,B,C	2bx
24. <i>Acraea jodutta jodutta</i> * F.	A,B	4bx
25. <i>Acraea lycoa</i> * God.	-	4b
26. <i>Acraea eponina</i> * Cr.....	-	4b
27. <i>Acraea quirina</i> * F.	-	4b
28. <i>Acraea pentapolis thelestis</i> * Pierre.....	-	4a

29. <i>Acraea vesperalis</i> * G-S	-	4a
30. <i>Acraea pseudogina</i> * Pierre	-	4a
31. <i>Acraea alciope</i> * Hew	-	4b
32. <i>Danaus chrysippus aegyptius</i> Schreber	A	3bx
33. <i>Leptotes pirithous pirithous</i> L.....	A,B,C	4b
34. <i>Leptotes terrenus</i> * Joy. & Tbt	-	1a
35. <i>Zizeeria knysna</i> Tr.	A	4b
36. <i>Cacyreus lingeus</i> Stoll.....	A	4a
37. <i>Virachola antalus</i> Hopff	C	4b
38. <i>Virachola chalybeata</i> * Joy. & Tbt	-	1a
39. <i>Eicochrysops hippocrates</i> F.....	A,D	4b
40. <i>Euchrysops malathana</i> Bsd.	A,D	4b
41. <i>Anthene princeps princeps</i> Btl	B	4a
42. <i>Anthene lunulata</i> * Tr.....	-	4a
43. <i>Azanus mirza</i> Plötz	C	4a
44. <i>Epamera bellina maris</i> * Riley	A	2a
45. <i>Chilades sanctithomae</i> * Sh.....	-	1a
46. <i>Phalanta eurytis eurytis</i> Dbd.	A,B	4b
47. <i>Cymothoe</i> sp.*	-	?
48. <i>Junonia oenone oenone</i> L.	A,B,C,D	4b
49. <i>Junonia sinuata</i> Plötz.....	A,B	4a
50. <i>Vanessa cardui</i> * L.....	-	4a
51. <i>Sallya boisduvali insularis</i> Joy. & Tbt.....	A	2a
52. <i>Neptis eltringhami</i> Joy. & Tbt.....	A,B	1bx
53. <i>Hypolimnas misippus</i> L.....	A,B,C	4b
54. <i>Hypolimnas dubius dubius</i> Pal.....	A,B,C	4bx
55. <i>Hypolimnas salmacis thomensis</i> Aur.....	A,B,C	2bx
56. <i>Charaxes candiope thomasi</i> Stg.	A,B,D	2bx
57. <i>Charaxes defulvata</i> * Joy. & Tbt.....	C	1a
58. <i>Charaxes antiquus</i> * Joy. & Tbt.....	A	1a
59. <i>Charaxes odysseus</i> Stg.....	A,B	1a
60. <i>Charaxes monteiri</i> Stg.....	A,B,D	1a
61. <i>Mylothris poppea f. asphodelus</i> * Btl.....	-	4a
62. <i>Mylothris berenice</i> * Hew	-	4a
63. <i>Zizina antanossa</i> Mab.....	A	4a
64. <i>Junonia pelarga</i> F.....	A	4b

Comments

Principe

2* - Mr J.CANU mentions an unconfirmed record of *P. dardanus f. sulphureus* from Principe.

5* - Principe specimens of *L. nupta* are smaller, the greenish pattern of the underside is less marked.

9* - TALBOT's Preliminary revision of the genus (1942) mentions one male of the form *arctata* and one female of the form *semifusca* caught on Principe on 2.XII.1932.

17* - The females of Principe population of *A. jodutta* are polymorphic (contrary to Sao Tome population). I registered at least 7 individual forms in Terreiro Velho (Principe).

18*, 19* - These two species are listed from Principe in a Portuguese paper, whose author I was unable to identify. It is a rather doubtful source. It mentions also *Acraea esebria*, obviously confused with *Acraea jodutta* form.

21* - *D. chrysippus* caught on Principe island are strange, dwarf specimens, not bigger than the females of *A. jodutta*.

27* - Mr J. WOJCIUSIAK says there are 3 battered specimens of this species from Principe in the BMNH collection classified as *V. bimaculata* (conspecific with *V. lorisona*?).

38* - The specimens of this species (?) from Principe are slightly different from those of Sao Tome. Mr J. PIERRE supposes they may represent an underscribed subspecies or even species.

40* - Principe specimens are generally smaller than those from Sao Tomé. This population shows no polymorphism.

41* - Mr J.G. CANU caught two specimen of *H. salmacis* near Porto Real (Principe) in an interval of 10 years. He says that the female looks like the "yellow" form from Sao Tome, while the male is similar to the continental forms. It is most probably a local underscribed form.

44* - I retain the status of *Ch. lemosi* as a valid species, proposed originally by JOICE & TALBOT and followed by HENNING (1988). The same applies to *Ch. defulvata* and *Ch. antiquus* (see comments on Sao Tomé n. 57 and 58).

Sao Tomé

5* - J.L. VIEJO (1984) lists *A. phoala* from Sao Tomé basing on BACELAR (1948).

6* - see comments on Principe n. 5.

7* - This is another species mentioned by J.L. VIEJO (1984) from BACELAR (1948).

9*, 10*, 11*, 61*, 62* - The bibliographical reports on the representatives of the genus *Mylothris* are a real puzzle:

- A. BACELAR (1948) lists 5 males and 6 females with the comment that one specimen misidentified by E. Sharpe as *M. berenice* is in fact a *M. nubila* (together with 5 other specimens), while the remaining 6 specimens represent *M. berenice*.

- A. BACELAR (1948) lists also well a female (taken by F. NEWTON) presumably a *M. asphodelus* which is, according to TALBOT (1942), a form of *M. poppea*.

- G. Talbot (1942) mentions *M. rembina* from Principe, however not from Sao Tomé. On the other hand, he lists *M. nubila* from Sao Tomé with no further details.

- J.L. VIEJO (1984) lists *M. sulphurea* from Sao Tomé.

- D'ABRERA (1980) mentions *M. nubila* from Sao Tomé. Further on, he illustrates a misidentified "dark" form of *M. chloris* as *M. rembina*.

The correct identification of the butterflies belonging to the genus *Mylothris* is very difficult. Most of the species are polymorphic and there are little obvious differences in male genitalia structure. I found three catch-spots of *Mylothris* butterflies on Sao Tomé island: Agua Izé (I-II & VIII-IX), Porto Alegre (VII) and Lagoa Azul (VIII-IX). The specimens taken in Agua Izé and in Porto Alegre have a yellow suffusion, while those from Lagoa Azul an orange suffusion in the basal area of the underside of the wings. Otherwise, there are no visible differences in wing pattern between the two populations. The two populations do not intermix and the specimens of the two forms do not intergrade. Study of male genitalia of the "yellow" and the "orange" form revealed that they are identical.

This fact, as well as the comparison with the *Mylothris* specimens in the MNHN in Paris and the drawings made by Mr BERNARDI, of *Mylothris rembina* type series stored in the BMNH collection, lead me to the conclusion, that the Sao Tomé populations represent two forms of *M. rembina* Pl.f. *semifusca* Tbt. "orange" and *f. arctata* Tbt. "yellow".

12* - The type series of this species was taken 1971 in Morro Peixe (extreme northern Sao Tome). D'Abbrera (1980) gives the range of this species as "Equatorial Guinea only". Equatorial Guinea or Spanish Guinea (as the ancient specimens in the BMNH are labelled) includes the continental Rio Muni (Bata), Fernando Poo island (Bioko) and Annobon island (Pagalu). Therefore the BMNH *D. piscicollis* specimens might well come from the island of Annobon situated south of Sao Tome. I assume there might easily appear erroneous

localisations. J.L. VIEJO (1984) in his paper based on the collections didn't find any specimen of *D. piscicollis* from Equatorial Guinea. I would rather consider *D. piscicollis* as an endemic species from Sao Tomé.

14*, 16*, 17*, 18* - CONDAMIN (1973), on the maps showing the distribution of *Bicyclus* species indicate these four species as existing on Sao Tomé, with no further references. It is most surprising to me as during 4 months of intensive trap collecting on Sao Tomé and Principe islands the only *Bicyclus* I found was *B. vulgaris* on Principe.

15* - CONDAMIN (1973) gives the distribution of *B. dorothea concolor* as "Fernando Poo and Sao Tomé and possibly Principe".

23* - Mr J. PIERRE confirms the validity of this subspecies described by D'ABRERA (1980).

24* - I found no polymorphic females in the Sao Tomé population of *A. jodutta*.

25*, 26* - These two species are listed in a Portuguese paper whose author I was unable to identify. It is the same source as for n^{os} 18 and 19 on Principe.

27* - Mentioned by J.L. VIEJO (1984) as *A. montironis*, -syn. from BACELAR (1948).

28*, 29*, 30*, 31* - These four species are mentioned by PIERRE (1983) from Sao Tomé.

- *A. pentapolis thelestis*, 3 ex. in the BMNH Rothschild coll.

- *A. vesperalia*, BMNH Barns collection.

- *A. pseudogina*, 2 specimens Rothschild collection.

- *A. alciopé*, 2 males in the BMNH Rothschild collection.

32* - An interesting local form similar to f. *chrysippus*. Characteristic feature of specimens caught are the white markings along the veins in the medial area of the hind wings.

34* - In D'ABRERA (1980).

38* - There is a specimen described as *V. chalybeata* labelled "Freetown (Sierra Leone)" in the MNHN in Paris, possibly a misidentified *V. galathea* Swainson.

42* - Listed by J.L. VIEJO (1948) who studied 3 males caught on Sao Tomé by S.V. PERIS and J. ALVAREZ on 08.07.1959.

44* - I observed this species in the secondary forest along the Rio Bomba (near Bombaim) in Jan. 1989.

45* - There is a very fine male of this species in the collection of the MNHN in Paris, labelled "Sao Tomé, edge of virgin forest, 10.01-34.01.1926, T.A. BARNES".

47* - Mr J.G. CANU says there are about three specimens of *Cymothoe* species belonging to the "*sangaris*" group caught on Sao Tomé, but he was unable to find them.

50* - There is one specimen of this species caught on Sao Tomé stored in the Poto Station collection. It wouldn't be surprising to find this strong migrant butterfly on Principe island as well.

57* - In HENNING (1988). I observed this butterfly twice (17.I.1989). I do not understand on what basis Mr S.F. HENNING (1988) in the part dealing with this species affirms: "Flies throughout the year". As far as I know, the only specimen caught is the holotype, but maybe I'm wrong?

58* - In HENNING (1988). Observed in Bombaim in January by Mr RATO CABINDA. Mr J.G. CANU caught this species in the surroundings of Lagoa Amelia.

61*, 62*, - See 9*, 10*, 11*.
