ON A COLLECTION OF BUTTERFLIES FROM KAW TAO

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(With Notes by A. Kerr.)

The collection dealt with below was made by Drs. A. F. G. Kerr and Hugh McCormick Smith on the isolated island Kaw Tao in the Gulf of Siam.

With the exception of *Megisba malaya sikkima* all the butterflies are common throughout Siam. By request of Dr. Kerr I have given wherever possible the food plants of the larva. It should be distinctly understoood, however, that much of my information is derived from Bell's papers in the Journal of the Bombay Natural History Society, and from Bingham in the Fauna of British India (Butterflies), and that many of the food plants given by them may not occur in Siam.

The absence of the very common Danaid, *Danaida plexippus plexippus* (Linn) is extraordinary, as this butterfly is common throughout Siam and on most islands. In Bangkok it occurs in swarms. Bingham gives its food plants as *Raphis pulchellum*, *R. lemna*, *Passularia* and *Ceropegia*. Bell gives "Asclepiads of the genus *Ceropegia*, mostly creepers of small size growing in the underwood".

[I have not been able to trace any Indian genera of plants with the names *Raphis* and *Passularia*. There are however two asclepiad genera with the names *Raphistemma* and *Pergularia*, the first having a species *pulchellum*. *Raphistemma* and *Pergularia* are both common in Bangkok, but *Ceropegia* is not found there. No representatives of any of these three genera have been found on Kaw Tao. *A. K.*]

PAPILIONIDAE.

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Papilio aristolochiae aristolochiae Fabr.

Jordan, in Seitz, Macrolep. ix, p. 38 (1909).

2 ♂ ♂.

Food plant of larva: *Aristolochia indica.*

[Though *Aristolochia indica* has not been found on the island, another species of that genus is common there. *A. K.*]

Papilio polytes polytes Linn.

Jordan, in Seitz, Macrolep. ix, p. 60 (1909).

1 ♂.

Food plants of larva: *Zanthoxylum Rhetsa*, DC.; *Glycosmis pentaphylla*, Correa; *Citrus medica*, Linn; *C. decumana*, Linn; and others of the *Rutaceae*.

[A number of rutaceous species grow on Kaw Tao, including two species of *Glycosmis*. *A. K.*]

PIERINAE.

Leptosia xiphia xiphia (Fabr.)

Fruhstorfer, in Seitz, Macrolep. ix, p. 123 (1910).

6 specimens.

Food plants of larva: Capers of all species except the absolute herbaceous ones. Has been bred on *Capparis heyneana* and *Crataeva religiosa*.

[There are four shrubby species of *Capparis* on the island, all fairly abundant. *A. K.*]

Huphina nerissa dapha (Moore).

Fruhstorfer, in Seitz, Macrolep. ix, p. 141, fig. 64 a (1919).

7 specimens.

Food plants of larva: *C. aphylla*, *C. sepiaria*, *C. heyneana*, *C. horrida*. Will probably eat any caper.

Huphina nadina (Luc.)

Fruhstorfer, in Seitz, Macrolep. ix, p. 142 (1910).

2 ♀ ♀.

Food plants of larva: Probably any caper.

Appias libythea (Fabr.)

Fruhstorfer, in Seitz, Macrolep. ix, p 148 (1910).

2 ♂ ♂.

Food plants of larva: *Crataeva religiosa*, *Capparis sepiaria*, and other capers.

Appias albina darada Feld.

Fruhstorfer, (*A. a. confusa*), in Seitz, Macrolep. ix, p. 154 (1910).

5 ♂ ♂, 3 ♀ ♀.

Food plants of larva: Probably any caper.

Ixias pyrene verna Druce.

Fruhstorfer, in Seitz, Macrolep. ix, p. 159 (1910).

7 ♂ ♂, 8 ♀ ♀.

Food plant of larva: *Capparis sepiaria.* According to Bell, "it will not readily eat any other caper."

[Though *Capparis sepiaria* has not been found on the island, there is a very closely related species, *C. diffusa.* *A. K.*]

Terias hecabe (Linn.).

Fruhstorfer, in Seitz, Macrolep. ix, p. 167, fig. 73 f. (1910).

1 ♂.

Food plants of larva: *Wagatea spicata,* some species of *Cassia, Poinciana regia* (Bell); *Pithecolobium dulce* Benth. (Ladell).

[No species of *Cassia*, nor any of the other plants mentioned above have been collected on Kaw Tao. *A. K.*]

Gandaca harina Moore.

Fruhstorfer, in Seitz, Macrolep. ix, p. 175 (1910).

1 ♂, 1 ♀.

Food plants of larva: Family Leguminosae.

[Leguminosae are fairly well represented on the island. *A. K.*]

Pareronia valeria hippia Fruhst.

Fruhstorfer, in Seitz, Macrolep. ix, p. 178, pl. 66 c. (1910).

1 ♂.

Food plants of larva: *Capparis heyneana,* and probably other Capers also.

DANAIDAE.

DANAINAE.

Danaida similis persimilis (Moore).

Fruhstorfer, in Seitz, Macrolep. ix, p. 211 (1910).

5 ♂ ♂, 5 ♀ ♀.

Food plants of larva: Figs and Nettles (Urticaceae); Dog-banes (Apocynaceae) [Bell]; *Passiflora sp.* (Bangkok, Ladell).

[There are a number of figs on the island and several genera of Apocynaceae. No *Passiflora* has been seen. *A. K.*]

Danaida melissa septentrionis (Butl.)

Fruhstorfer, in Seitz, Macrolep. ix, p. 202 (1910).

5 ♂ ♂.

Food plant of larva: *Vallaris dichotoma* (Bingham, *teste* de Nicéville.)

[No *Vallaris* has been seen on the island. *A. K.*]

Euploea modesta modesta Butl.

Fruhstorfer, in Seitz, Macrolep. ix, p. 231 (1910).

4 ♂ ♂, 2 ♀ ♀.

Food plants of larva : Oleanders.

[There are no oleanders (*Nerium*) on Kaw Tao. *A. K.*]

Euploea deione limborgi Fruhst.

Fruhstorfer, in Seitz, Macrolep. ix, p. 238 (1910).

1 ♂.

Euploea mulciber mulciber (Cram.).

Fruhstorfer, in Seitz, Macrolep. ix, p. 250 (1910).

1 ♀.

Food plants of larva :—Probably oleanders.

SATYRIDAE.

SATYRINAE.

Mycalesis mineus mineus (Linn.).

Fruhstorfer, in Seitz, Macrolep. ix, p. 344 (1910).

2 ♀ ♀.

Food plants of larva : Grasses.

[Grasses are fairly common on the island, chiefly littoral species. *A. K.*].

NYMPHALIDAE.

Cupha erymanthis lotis (Sulz).

Fruhstorfer, in Seitz, Macrolep. ix, p. 465 (1912).

1 ♀.

Food plant of larva : *Glochidion eriocarpum* Champ., a common wayside bush with woolly leaves (Walker).

[No *Glochidion* is known from the island. *A. K.*]

Cirrochroa tyche mithila Moore.

Fruhstorfer, in Seitz, Macrolep. ix, p. 486 (1912).

1 ♂, 1 ♀.

Food plants of larva : Cassias (Bangkok).

[No *Cassia* has been found on Kaw Tao. *A. K.*]

Cyrestis cocles cocles (Fabr.).

Fruhstorfer, in Seitz, Macrolep. ix, p. 574, fig. 122 b (1912).

11 specimens.

Food plants of larva : ——?

LYCAENIDAE.

MILETINAE.

Miletus boisduvali irroratus (Druce).

Fruhstorfer, in Seitz, Macrolep. ix, p. 817 (1915). (*Gerydus*).

1 ♂, 1 ♀.

Food of the larva: Fruhstorfer (*l. c.*) writes as follows: "The larva feeds on aphis, some bites being sufficient to devour them. After their meal the larvae lick off their feet, exactly like the mantis use to do, too. The aphis on being devoured are pressed against the plant or held suspended, sometimes even carefully picked out and apparently examined by smelling whether they are edible. The aphis themselves are not aware of the danger threatening them by the *Gerydus*-larvae, for sometimes they climb across the larvae or they crawl round them. The eggs of the butterfly are deposited in the midst of a heap of aphis and clued on with their entirely flat base, so that they cannot glide off nor be removed by the aphis."

LYCAENINAE.

Megisba malaya sikkima Moore.

Fruhstorfer, in Seitz, Macrolep. ix, p. 857 (1915).

1 ♂.

Food plants of larva: Bell gives the following:—"Sapindaceae (probably *Hemigyrosa, Erioglossum, Schleichera, Harpullia*)."

[Both *Erioglossum* and *Harpullia* occur in the island. *A. K.*]

Euchrysops pandava pandava (Horsf.).

Seitz (*Catochrysops*), Macrolep. ix, p. 922, fig. 135 k (1924).

16 ♂ ♂, 1 ♀.

Food plants of larva: Bell writes:—"Food plants vary, but are generally belonging to the Leguminosae (*Xylia dolabriformis* being the commonest).....Has been bred upon the garden plant *Cycas.*"

[There is no *Xylia*, but there are other genera of the sub-family Mimoseae. *Cycas Rumphii* is found along the coast. *A. K.*]

THECLINAE.

Amblypodia centaurus (Fabr.).

Seitz, Macrolep. ix, p. 950, fig. 150 a (1926).

2 ♂ ♂.

Food plants of the larva: *Terminalia tomentosa*, *T. paniculata* (Combretaceae), *Lagerstroemia microcarpa* (Lythraceae), *Xylia dolabriformis* (Leguminosae).

[None of the species of plants mentioned are found, but there are two other species of *Terminalia* on Kaw Tao. *A. K.*]

Loxura atymnus continentalis Frubst.

Seitz, Macrolep. ix, p. 996 (1926).

3 ♂ ♂.

Food plants of larva: *Smilax* and *Dioscorea*. According to Bell, no other food plants are known.

[Both *Smilax* and *Dioscorea* grow on the island. *A. K.*]

Hypolycaena erylus himavantus Fruhst.

Seitz, Macrolep. ix, p. 984, figs. 148 a, 158 c (1926).

23 ♂ ♂, 2 ♀ ♀.

Food plants of larva: ——?

HESPERIIDAE.

Iambrix salsala salsala (Moore).

Seitz, Macrolep. ix, p. 1063, fig. 168 (1927).

2 ♂ ♂, 1 ♀.

Food plants of larva: Grasses.

Baoris guttatus bada (Moore).

Seitz, (*Parnara*), Macrolep. ix, p. 1083 (1927).

2 ♂ ♂.

Food plants of larva: Grasses and Rices.

[Grasses, as noted above, are fairly common, but there is no rice on Kaw Tao. *A. K.*]