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### VII.—Descriptions of some new species of the genus *Gynautocera*, from Northern India

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THE ANNALS  
AND  
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No. 124. FEBRUARY 1847.

VII.—*Descriptions of some new species of the genus Gynautocera, from Northern India.* By EDWARD DOUBLEDAY, Assistant in the Zoological Department of the British Museum, F.L.S. &c.

[With a Plate.]

Genus GYNAUTCERA, *Guérin.*

Section AMESIA, *Hope.*

*Gyn. Namouna.* Alis omnibus fuliginosis, anticis punctis sex minutis pone cellulam albidis, posticis maculis disci cæruleis, margine externo linea alba cæruleaque profunde dentata notato. ♀.  
Exp. alar. 4 unc. vel 100 mill.

*Hab.* India Septentrionali.

Anterior wings fuscous black, with six minute white spots edged with blue, placed between the nervules immediately beyond the cell. Posterior wings of the same colour, with four blue spots placed transversely a little beyond the middle, two similar spots at the end of the cell, of which the inner is pupiled with white. Between the cell and the outer margin is a deeply zigzag line, the outer angles upon the ends of the white slightly bordered with blue, the inner between the nervules bright blue, embracing a series of fine white spots; anal angle gray.

Below, black, all the wings bordered with white; nervules of anterior wings slightly, of posterior very distinctly bordered with white.

Head, thorax and abdomen black above, spotted with blue below, the terminal segment of the last blue. Antennæ and legs blue.

In the collection of the British Museum.

The marginal band of the posterior wings very much resembles that of the two common species of the genus *Thais* in form.

*Ann. & Mag. N. Hist. Vol. xix.*

*Gyn. Aliris.* Alis omnibus supra fusco-nigris, anticis maculis quatuor basalibus roseis, apicalibus plurimis albido-cæruleis, posticis margine externo læte et late cæruleo, maculis albis. ♂ ♀. Exp. alar.  $3\frac{1}{2}$  unc. vel 90 mill.

*Hab.* Silhet.

Anterior wings fuscous black, with a chocolate or vinous hue in certain lights; the base darker, with several small bright blue dots, followed by four rosy spots, one on the costa, one nearly opposite to this below the cell, two in the cell rather farther from the base; the margin with a series of white dots divided into two parts by the nervules and bordered with blue, between which and the cell are six small dots placed in two transverse series, and also a seventh placed more internally near the third of the inner series. Posterior wings of the same colour, with a broad blue patch commencing on the costa beyond the middle, occupying the outer angle and extending along the outer margin nearly to the anal angle, preceded by one or two detached spots of the same colour, and marked by a series of submarginal white spots, preceded by three others of the same colour near the apex.

Below, the posterior wings want the blue border, have the anal angle blue, a red spot in the cell followed by four blue ones with white centres; the anterior wings have the spots larger and bluer than above, and also have several additional spots on the disc.

Head, thorax and abdomen black, spotted below with white, the terminal segment of the last shining olive-green, especially in the males. Antennæ blue, pectinated in both sexes, not differing remarkably in their structure.

In the collections of the British Museum, Dr. Boisduval, &c.

Closely allied to *B. Sanguiflua*, Drury (*Am. Sanguiflua*, Hope), but at once known by the absence of the purplish red veins.

*Gyn. Azim.* Alis omnibus utrinque fuscis, maculis numerosissimis flavidis adpersis, anticis basi fascia transversa flava. ♀? Exp. alar.  $3\frac{1}{2}$  unc. vel 90 mill.

*Hab.* India Septentrionali.

Wings fuscous black, somewhat diaphanous: the anterior with numerous pale yellowish spots, viz. a series of small rounded dots between the costa and costal nervure, alternating for some distance beyond the base with a series between the costal and subcostal nervures, two series in the cell, of which the upper are elongate-quadrate, the first and second of the lower series round, the first being very small, the third almost reniform, the fourth, fifth and sixth elongate, and the second round; a series of rounded dots in the interstices between the subcostal and discoidal nervules, a similar series and a solitary spot in that between the se-

cond discoidal and the third median nervules, a double series in the interstice between the second and third median nervule, the upper consisting of five, the lower of four rounded spots, and between these near the cell a solitary spot; in the next interstice a series of five and another of three spots, followed by two very minute ones near the margin; in the interstice above the submedian nervure a series of fifteen spots, the first round, as are also the six outer ones, the last of all very minute; a rounded spot at the origin of the first median nervule; in the interstice below the submedian nervure and along the inner margin two other series of spots, the upper composed of fifteen, the lower of ten, the five outer of the first and four outer of the inner series rounded. The posterior wings have two series of suboval spots in the cell, the last but one of the inner series being small and placed a little out of the straight line.

Head, thorax and abdomen black, spotted with white. Antennæ black.

In the collection of H. G. Harrington, Esq.

The only specimen I have ever seen of this curious species is the one from which the above description has been taken: unfortunately the posterior wings are much injured.

*Gyn. Camadeva.* Alis anticis trigonis, nigris, puncto minuto in cellulam, quinque pone cellulam, duobusque anguli anali albidis posticis saturate cæruleis fimbria nigra. ♂. Exp. alar.  $2\frac{1}{2}$  unc. vel 55 mill.

*Hab.* Penang.

Anterior wings elongate, trigonate, black, a minute spot near the end of the cell, five rather larger oval ones beyond the cell and two near the anal angle, pale, subdiaphanous. Posterior wings rich deep blue, with a narrow black border.

Below, the anterior wings are bright blue with the apex fuscous, the markings of the upper surface reproduced more clearly, and besides there is a yellow vitta in the cell at the base, an irregular spot in the cell, and an indistinct cloud below it of the same colour. Posterior wings blue, with a black border, three yellow vittæ at the base, an irregular yellow spot in the cell, between the cell and the nearest vitta two spots of the same colour, the first small, the second large, oval; on the anterior margin near the outer angle a large white spot, preceded by a black cloud and some white atoms; about the middle of the outer margin two white spots, the inner preceded by a black ocellus pupiled with white.

Head and thorax black above, yellow below. Antennæ blue.

Abdomen blue above, yellow below.

In the collection of the British Museum.

*Gyn. Adalifa*. Alis omnibus albidis, anticis nervis, nervulis, fasciaque transversa nigris; posticis nervulis cæruleis, fascia transversa nigra, angulo anali flavo. Exp. alar. 3 unc. vel 74 mill.

*Hab.* Silhet.

Anterior wings white, slightly tinged with yellowish, the nervures and nervules of a greenish black; a waved band of the same colour extends from the costa across the end of the cell, and is continued onwards as far as the first median nervule of the posterior wings. Posterior wings of the same colour as the anterior, broadly yellow at the anal angle, the subcostal and median nervures and nervules and the discoidal nervule bluish green.

Below, the anterior wings have a basal black vitta along the costa, and the base of the cell is greenish.

Head green; thorax black, prothorax crimson; abdomen pale. In the collection of the British Museum.

Section CHALCOSIA, *Hübner*.

*Gyn. Zuleika*. Alis omnibus albis, anticis fimbria lata marginis externi nigra, aureo-viridi notata, basi, fasciaque media transversa, aureo, nigro, viridi, cæruleoque variegatis, posticis apice late nigro, cæruleo vittato. Exp. alar. 2 unc. vel 50 mill. Pl. VII. fig. 4.

*Hab.* Silhet.

Anterior wings with the base of a bright golden green, the green colour bounded externally by bright blue varied with black and green; beyond this a wide space of a very light cream-colour or almost of a pure white, then a broad transverse band of a bright golden green, bordered on each side with black, divided by blue nervures and shaded with blue. The whole outer margin broadly black, the black extending more along the costa than the inner margin, glossed with blue and divided by broad golden green lines along the nervules. Posterior wings white, the apex broadly black, divided by blue lines along the nervules; the cilia white.

Below, anterior wings nearly as above but less brilliant, the white space near the base yellowish, the apex white. Posterior wings white, immaculate.

Head, thorax and base of abdomen gold-green, abdomen except the base pale. Antennæ blue; legs white.

In the collection of the British Museum, &c.

*Gyn. Zelica*. Alis anticis nigro-fuscis, macula magna baseos, fascia media transversa maculisque tribus apicalibus albis; posticis albis, fimbria lata nigro-fusca. ♂ ♀. Exp. alar. 2—2½ unc. vel 50—65 mill. Pl. VII. fig. 3.

*Hab.* Silhet.

Anterior wings black, with slight bluish or greenish reflections,



the base with a large white spot not reaching the costa, the middle with a broad white band, the apex with three white spots placed transversely, less distinct in the males than in the females; the apex in the females white. Posterior wings white, with a broad black fimbria; the apex in the females white.

Below, colours and markings as above, but greener.

Head blue; antennæ very deeply bipectinated in the males, much less so in the females except at the apex.

Thorax green anteriorly. Abdomen of the male yellow, with a black transverse band on each segment above. Abdomen of the female white.

*Gyn. Zenotia*. Alis omnibus subdiaphanis albidis anticis vitta ad basin costæ, maculis duabus costalibus, altera marginis interni, aliquotque marginis externi nigris; posticis macula costali apiceque nigris. Exp. alar.  $1\frac{1}{2}$ —2 unc. vel 40—50 mill. Pl. VII. fig. 2.

*Hab.* Silhet.

Anterior wings somewhat diaphanous white, the costa from the base to about the middle black, marked before the middle and beyond the cell with a large subquadrate black spot; the outer margin towards the apex with two black patches, below which are some irregular black spots; on the inner margin near the middle is a large black spot divided by a nervule, and between the cell and the anal angle another smaller oval one. Posterior wings with a fuscous black spot near the costa, the apex also fuscous.

Below, as above.

Antennæ of the male large, very deeply bipectinated; of the female less deeply except at the apex.

#### Section HETERUSIA, *Hope*.

*Gyn. sex-punctata*. Alis omnibus luteis anticis pone medium punctis duobus, posticis unico nigro cærulescentibus. Exp. alar.  $1\frac{1}{2}$  unc. vel 40 mill.

*Hab.* Silhet.

All the wings luteous above, with two small bluish black dots between the end of the cell and the anal angle of the anterior wings, and one in a similar position on the posterior. Below, rather paler, with a second indistinct spot on the posterior wings.

Head and prothorax bright red. Antennæ bluish black. Abdomen black at the base with white rings, beyond white with black rings.

In the collection of the British Museum.

The colour and markings of this species strikingly resemble those of some *Lithosiæ*.