

## DESCRIPTION OF NINE NEW BOLIVIAN BUTTERFLIES.

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### *Adelpha deborah* sp. nov.

Expanse 2 inches.—Head, thorax, palpi, abdomen and legs rich brown above; white beneath. Antennæ black, tipped with brown.

General ground color of upper surface dark brown, as in nearly all species of this group.

The forewing is crossed by a very prominent band of tawny color running from centre of costa downwards, touching end of discoidal space, and striking inner margin one-third distance from lower angle to base. The portion opposite the lower end of discoidal space extends outwards towards hind margin. The veins crossing the bands are distinctly marked, being dark brown. One-sixteenth inch within hind margin is an irregular black line following contour of the margin, and within this is a suffused band of a color slightly lighter than ground color, somewhat indistinct. The space between this and the tawny band, including the apical area, is of the ground color. The basal area within the tawny band is of the ground color, crossed by black lines as follows: in discoidal space a line starts from median nervure, very near the base, and runs upwards, striking the subcostal nervure, and then turns abruptly downwards across centre of discoidal space; below, in next interspace, this line forms two small circles, one above the other. Across outer portion of discoidal space run two parallel black lines.

The lower wing is crossed by three parallel bands, somewhat lighter than ground color, starting at costa near apex and joining at anal angle. Within hind margin, midway to the first of these bands, is an indistinct line of the same color following the dentations of the margin. There is a fourth and broader band within the three mentioned, running from centre of costa, terminating also at anal angle, but it is very indistinct. The basal portion of wing is of ground color, excepting a very indistinct band of darkish across the discoidal space. Just above the anal angle, one may say *at* the anal angle, is a tawny spot.

The under surface is generally blackish, marked with white and tawny.

On underside of forewing, the first half of costa from base upwards, is tawny. From the base, in discoidal space, is a dash of white extending along the subcostal nervure; outside of this the discoidal space is crossed by a white triangle, surrounded by a black line; the balance of discoidal space is dark tawny crossed by a very prominent spot or band of silvery white with a black border. There is a very small white dot also at lower outer end of the space, surrounded by black. The tawny band of the upper surface is white, but is encroached upon, and so lessened in extent, by the suffusion of the blackish ground color. Within the hind margin appear the line and band noted on upper surface, but at the apex and lower angle, for the first three interspaces, these are white. The basal



area below the discoidal space and within the main band, is crossed by two broad white bands.

The under side of hind wing is crossed at its centre by a prominent silvery white band running from centre of costa nearly to anal angle, forming an extension of the band on the forewing. This is the band which appears so indistinctly on upper side within the three first bands there noted. Outside of this band the ground color is blackish, crossed by three bands of white dusted with tawny as they approach anal angle. The outer one of these is broad and distinct, broken by the veins. Just within the margin is a thread of white, interspacial and following the dentations of margin. Within the main silvery band and extending from costa to anal angle, is a broad black band dashed with tawny in its centre at its upper half. Within this is another silvery band with a black border. The very base or shoulder is tawny. The tawny spot at anal angle suffuses in all directions, extending along lower median nervule to the base.

*Hab.*—Colombia.

One specimen of this has been found in the British Museum collection without name.

***Adelpha helepecki* sp. nov.**

Expanse 1.80 inches.—Head, thorax and abdomen above, rich brown; below, tawny. Palpi above rich brown; below, grayish white. Legs above, tawny; below, grayish white.

General ground color of upper surface is rich brown. Hind margins are somewhat dentated and touched with a white thread in interspaces.

From the centre of costa on forewing, perhaps nearer apex, extends a broad tawny band running nearly to inner angle. This band is the prominent mark of upper surface. The subcostal nervule as it crosses this band is distinctly black, the other nervules and nervures scarcely showing. Opposite the interspace, at end of discoidal space, this tawny band juts outwards towards hind margin. The apical area is crossed by two lightish bands parallel to hind margin and very indistinct. Inside of the tawny band, the entire basal half of the wing is dark rich brown, excepting four black lines which cross the discoidal space in pairs. The two outer lines are parallel to each other. The inner line of the next pair turns at its centre towards the base.

The upper side of lower wing is of same ground color, marked by four wavy lines or narrow bands of a lighter color which run across the outer half of the wing following the contour of the hind margin. The inner two of these are broader and less distinct than the outer two. The suffusion of these causes the ground color between them to be broken into interspacial semi-circles, in some specimens causing the ground color to become secondary to them. The inner marginal space is lighter than ground color.

On under side of forewing the costa is dark tawny half way to apex. The discoidal space has a ground color of dark tawny. At its base, extending upwards from the wing joint, is a white dash surrounded by black and divided from the ground color by a semi-circular black line bulging outwards with a small white dash within its upper and lower ends. Across the centre of discoidal space is a prominent silver band edged with black. At the lower outer end of discoidal space is an irregular silvery spot. The tawny band across the wing is the same



as on upper surface, except the color is a *light* tawny and the nervures and nervules are distinctly of a darker shade. The portion of this band which juts outwards towards hind margin is crossed at its centre by a dark tawny band which extends downwards, but indistinctly, across the lower portions. The hind margin has a black thread, then a sixteenth-inch border of dark tawny. Within this in apical area are four interspacial dashes of bright tawny suffusing towards the base, and midway between these are three or four silver spots in interspaces downwards from costa. The basal side of these is dashed with black. The outer side of the prominent band is touched with dark brown, broad at centre of wing but linear towards lower angle. The basal portion of the wing below the discoidal space and within the band is black crossed by the dark tawny nervules, and just above the submedian nervure is a silver spot touching discoidal space.

The colors of under side of lower wing are the same as upper wing. The ground color is bright tawny. Across the centre of wing, running from near the apex to the anal angle, is a band of blackish brown, broad at the centre and tapering towards anal angle. Within this is a line of interspacial silver spots. The hind margin with its border of dark tawny is the same as on forewing.

The basal and inner marginal area within the blackish brown band is bright tawny. In the discoidal space are three prominent silver spots, one at its centre and one at each end. Above these, on costa, are two silver spots of equal prominence. The interspaces at end of discoidal space have dashes of silver. The nervures and nervules are dark tawny.

*Hab.*—Bolivia, near Alezuni.

Described from ten specimens from Alezuni, Bolivia. Absolute identification from representatives of this genus in collections in this country seemed impossible, but it was identified in London as *A. saundersii* Hew., which I have from Colombia and Bolivia. The yellow band of *saundersii*, however, is not so prominent and is encroached upon more by the rich ground color. The underside of *saundersii* is quite different, the bright silver of *helepecki* being replaced by dead white, and the dark band of lower wing with its silver interspacial spots showing in *saundersii* as a narrow dark tawny band. While the location of silver or white spots is practically the same on each, the size of these spots differs totally, and the bright tawny on underside of *helepecki* does not appear on *saundersii*, but is replaced by a dark brownish. There is no variation in the specimens that I have of *helepecki*, nor any sign of intergrading towards my specimens of *saundersii*.

**Dædalma bronza** sp. nov.

Expanse 2.70 inches.—Head, palpi, eyes and antennæ dark bronze-brown. Thorax and abdomen dark bronze-brown above, dark grayish brown beneath. Legs dark grayish brown.



Entire upper surface of both wings is dark bronze-brown, with some lustre, without markings. Hind margins dentated, strongly so on lower wings. In interspaces the edge has a white thread, entirely absent, however, in some specimens.

Underside of forewing grayish bronze. Costa grayish bronze. From point of apex, and extending down to second median nervule, one-eighth inch within the margin, is a jagged line of dark bronze. At the second median nervule it suffuses and broadens out to the margin, extending as a marginal border to lower angle. Within this the area to top of discoidal space is grayish bronze, broadening out below and covering the lower interspaces entirely up to median nervule. The upper portion of this area is slightly dusted with silvery scales. In the interspace below the fifth subcostal nervule is a small circular dark brown spot with a white dot at centre, situated just inside the jagged line above mentioned. In interspace between the median nervules there is another, and also in interspace above submedian nervule, similarly situated, is a larger circular spot of dark brown, but without the central white spot. The discoidal space is grayish, but darker than rest of wing and suffuses into the adjoining interspaces.

The lower side of hind wing has a hind marginal border of dark brown about one-eighth inch wide, following the dentated contour of the margin. Within this is an area of grayish bronze corresponding in color to the same area in forewing and covering outer half of wing. In each interspace is a prominent dark brown spot with a white dot at centre, the upper three being on the basal side of this grayish bronze area, while the lower ones are in the centre of it. Within this area, towards base, is a space of silvery white with ill-defined edges, extending from the costa (just within apex) to a point somewhat above anal angle. There is a jagged dark brown line from the end of discoidal space nearly to inner margin. The basal area is dark brown dusted with silvery scales.

*Hab.*—Bogota district, Colombia.

Described from nine specimens in my collection. One specimen, the only one found in any American or English collection, is in the Hewitson collection, but without name.

***Euptychia luttela* sp. nov.**

Expanse 1.15 inches.—Head and palpi blackish brown. Antennæ blackish brown above, with slight whitish annulations at base of each joint; below, light brown. Club the same, but showing fulvous tip beneath. Thorax and abdomen dark bronze-brown, lighter underneath. Legs the same.

Entire upper surface of both wings bronze-brown, with a little lustre and tending to darker at base.

Underside of forewing dark bronze-brown, lacking lustre. One-sixteenth inch from hind margin is an indistinct line of dark brown, the area outside of this line at apex being dusted with grayish scales. One-quarter inch within this line is another, very indistinct, running from costa down to third median nervule. Inner margin grayish.

Hind margin of hind wing dark brown. One-sixteenth inch inside of margin is a dark brownish line, and the same distance within this another, both following contour of margin. The space between these lines is heavily dusted with somewhat tawny scales suffusing beyond the lines on both sides. Between the



first and second submedian nervules is a small tawny spot, with a black speck in its centre touching the inner side of the black marginal line. The inner half and basal area is black bronze-brown.

*Hab.*—Bolivia, near Alezuni.

Taken August 9th, 1899. It closely resembles *E. liturata* Butl., but lacks the ocellus at apex of forewing below.

***Ithomia gardneri* sp. nov.**

Expanse 2.30 inches.—Head black, with a white spot at centre and a white spot over each eye. Eyes surrounded by a white ring. Thorax above, black, with a longitudinal white dash; below, white. Abdomen above, black; beneath, white. Antennæ above, black; beneath, white in some lights. Club the same. Legs black above; white beneath.

Upper surface generally transparent with a yellowish tinge. Veins black.

Costa of forewing tawny with a whitish dash on end of discoidal space. Hind margin edged with black, a little more prominent at ends of veins. Inner marginal space black. In some lights there are two dashes of yellowish in interspaces at end of discoidal space, the lower one being nearer hind margin. The interspaces at hind margin also have a dash of the same, and there is another longitudinally across centre of discoidal space. These markings are scarcely visible.

The hindwing has a marginal border of black somewhat broader than on forewing, and within this, on hind margin, the yellowish dashes are larger.

The underside of both wings is the same as upper side, except that the black is replaced by dark tawny brown.

*Hab.*—Bolivia.

Described from eight specimens in my collection taken near La Paz, Bolivia, in April, 1899. It is close to *I. esula* Hew. in its general appearance.

***Lycæna babhru* sp. nov.**

Expanse .88 inches.—Head, abdomen and legs light brown above; whitish beneath. Thorax light brown above; white beneath. Palpi light brown, almost white, tipped with black.

General ground color of upper surface is brown with considerable lustre. The hairy fringe of hind margin is brown, shading to white at outer edge. There is a black thread along hind margins.

The upper side of forewing is light brown without markings, the density of the brown being variable in various lights.

The upper side of hind wing is the same, except that there are interspatial lunules of white near hind margin, scarcely perceptible at apex, but growing quite prominent near anal angle. These lunules are nearly circular, the inclosed space being somewhat darker than the ground color, resembling darkish spots.

The underside of forewing is light brown without lustre. Hind marginal fringe the same. From the subcostal interspace downwards is a line of interspatial dark spots surrounded by a whitish thread, seven in number, the upper



four near centre of wing and in line with the hind margin, the lower three somewhat nearer base. Inside the upper four spots, nearer base, and in the discoidal area, are two more similar spots less distinct. In interspaces at hind margin is a series of lightish lunules surrounded by dark brown, all quite indistinct.

The underside of hindwing is of the same ground color; the marginal fringe also. In subcostal area, midway from apex to base, is a dark spot, with a whitish border resembling the spots on forewing, and near the base is another. Below the median vein at end of discoidal space is a prominent dash of white extending nearly to hind margin. This forms the prominent mark of under surface. From its basal end, and running to inner margin, is a series of three white lunules. The lunules at hind margin are far less distinct than on upper surface, and are elongated towards the base.

*Hab.*—Sicasica, Bolivia.

Taken in October, 1899.

***Metacharis indissimilis* sp. nov.**

Expanse 1.25 inches.—Head above, black; beneath, light tawny. Antennæ black. Legs light tawny. Thorax and abdomen above, black; beneath, light tawny.

General ground color of wings dark grayish brown.

Costa of forewing dark grayish brown. Hind margin has a narrow border of rust color, scarcely perceptible at lower angle, but broadening towards apex. In each interspace, about one-sixteenth inch from margin, is a black dot. At apex, within the rust-colored tip, is a broad band of tawny color running from costa across apical area towards hind margin, a quarter inch wide. This is the prominent feature of the wing. The rest of the wing to the base is dark grayish brown, marked with irregular transverse black lines. Three of these lines, equidistant, cross the discoidal space extending downwards to submedian nervure. Another borders the outer edge of discoidal space. Another starts at subcostal nervure, bordering the tawny space and then extends downwards to submedian nervure and at right angles to it. Outside of this, in the two lower interspaces midway to hind margin, are two black dashes.

The hind margin of lower wing is rust colored, but suffused by ground color, rendering it almost imperceptible. The interspacial black dots are present, each surrounded on basal side by a semicircle of black. The black lines of forewing are duplicated, but broken, having more the appearance of a series of spots.

The general coloring of under surface is much brighter, generally tawny.

The hind margin of forewing is dark tawny or rust colored. The interspacial black dots are quite prominent. The tawny band of upper side is repeated, but suffuses downwards towards inner margin. The discoidal space is rust color, suffusing into adjoining interspaces. The space from lowest median nervule to inner margin is yellowish gray, except for a small portion bordering lower angle. The black lines of upper surface are duplicated but broken into spots.

The hind margin of lower wing has a prominent border of rust color one-eighth inch wide. The interspacial black dots are present, bordered on basal side by a bit of light tawny, the black semi-circles of upper side scarcely showing. Rest of wing is yellowish gray, the black lines or spots appearing as on upper side.

*Hab.*—Colombia, Bogota District.



This closely resembles *M. lucius* Fabr., and several examples are in European collections mixed in with it.

**Pamphila cuadrada** sp. nov.

Expanse 1.00 inch.—Head and thorax above, dark brown; beneath, light brownish gray. Abdomen above, dark brown; beneath, dark brown tending to dark rust color. Legs the same. Abdomen above, nearly black with slight white annulations at base of each joint; below, the same with a dash of whitish at club.

Upper side of forewing dark bronzy brown with slight lustre. Costa near base is dusted with light golden brown scales. Above the end of discoidal space are two indistinct tawny dots. Within the discoidal space near its end and resting on median nervure is a tawny spot, and below it in next interspace, is another somewhat larger. In interspace above this, at its junction with discoidal space, is another similar spot adjoining the first mentioned one. The fringe of hind margin is of the ground color.

Upper side of hind wing rich dark brown, darker than forewing and without lustre. Across the end of discoidal space is bright tawny dash extending basewards along subcostal and median nervures to centre of discoidal space and then suffusing across the space forming a square. The hind marginal fringe is light brown.

Underside of forewing is nearly black. The costal space is dark brick red, the red covering also the apical area and extending down hind margin and diminishing to a point at its centre. The two subcostal white dots of upperside are repeated. The three tawny spots of upperside are repeated, but are nearly white and suffuse into one another, the suffusion extending downwards into inner marginal area. The marginal fringe is of ground color.

Underside of hindwing is dark brick red, without markings, except indistinct interspacial blotches of a darker shade, giving it a mottled appearance on very close inspection. The inner marginal area tends to blackish. The hind marginal fringe is dark brown.

*Hab.*—Bolivia, near Coroico.

Described from three specimens taken in the Coroico district in May, 1899.

**Phyciodes nortbrundii** sp. nov.

Expanse 1.45 inches.—Head and palpi black. Collar black, with a dark fulvous spot at each shoulder. Antennæ dark brownish black, with a slightly darker annulation at base of each joint. Thorax black above and below, with a dark fulvous spot at joint of forewing below. Abdomen above, black; below, grayish.

Ground color of wings black or dark brownish black, with dark fulvous markings.

Costa of forewing black, with a dash of dark fulvous extending from joint. One-third distance from apex to base is a series of dark fulvous interspacial dashes, five in number, extending at right angles to costa down through the next lower interspaces, forming a fulvous band across apical portion of wing. Discoidal space dark fulvous, with a black dash crossing the centre transversely. The dark fulvous extends into the three lower interspaces one-half distance to hind margin. Hind margin black.

Hind wing black, with dark fulvous centre; the fulvous centre being interspatial, most extensive in discoidal space and encroached upon in each interspace by a black pointed dash extending inwards from the black back-ground of outer third of wing.

Underside of forewing the same as upperside, except that the dark fulvous band across apical area is somewhat broadened and extends down on hind margin to inner margin, and the apical area is fulvous, with a black thread along centre of each interspace. Nervules black.

Underside of hindwing has a border of dark brownish fulvous covering one-third of wing. Within this and shading into it is a narrow portion of light fulvous. Basal portion dark fulvous, the discoidal space being crossed by a black line. In each interspace, extending from hind margin to centre of wing, is a black line. Nervules and nervures black. Inner margin light fulvous.

*Hab.*—Bolivia, Cochabamba district.

Described from four specimens taken north of Cochabamba, August 25, 1899.