

On *Zygaena* (*Agrumenia*) *youngi* Rothschild (Lep., Zygaenidae)*

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Zygaena youngi Rothschild was described in 1925 from 1 ♂ taken above Azrou, Middle Atlas, Morocco, as follows "75. *Zygaena youngi* sp. nov. Differs from *orana* and its subspecies by its much larger size, more brilliant red colour and in having the seventh outer spot longer and straighter. Expanse 23 mm. 1 ♂ above Azrou, Middle Atlas, 1800 m=6767 ft, Juni 1925." The description of the ♂ Type in Seitz, Suppl. 2 by Hugo Reiss (1930) reads "A ♂, found in June above Azrou (Middle Atlas), 1800 m, has on the forewings a light blue gloss and bright red coloration. Spot 2 somewhat enlarged, spots 3, 4 and 5 are so close to one another that they are weakly connected by their lighter surroundings. Spot 6 is placed more vertical than in *orana* and is almost without the light edging, whilst from spot 5 it is relatively widely separated. On the underside the forewing spots are weakly confluent. Antennae clubbed, round at the extremity. Head, thorax and abdomen deep black and fairly strongly haired. Outer sides of legs black-brown. We figure the Type from the Tring Museum." The figure on plate 3a shows too much yellow content in the red, and the edging of the spots is too strongly emphasised.

Tremewan (1961) figures the Type ♂ of *Z. youngi* Rothschild, 23 mm, 1.6.1925 (Hartert & Young); further, 1 ♂, 22 mm, from Lake Sidi Ali, Middle Atlas, 2250 m, 8.6.1925 (Hartert & Young), that was originally described as *Z. orana media* Rothschild (see also Reiss & Tremewan, 1960, with figures of the Type ♂ and the ♂ genitalia). Alberti (1958) placed *youngi* as a subspecies of *Zygaena maroccana* Rothschild. We would like to follow the opinion of Lord Rothschild and place *youngi* as a species, until biological knowledge which at present is lacking, is published. Wiegel (1965) wrote that he and his wife had studied the biology of *Z. youngi*. This will be published eventually. He says in advance that *Z. youngi* is a good species.

We received in exchange from Wiegel 1♂ 1♀ of *Z. youngi*, leg. H. and Ch. Wiegel, labelled Aguelmane de Sidi Ali, 2100 m, 19.5 and 23.5.1965: also 1 ♂ 1 ♀ labelled south of Azrou 2000 m, 13.6 and 22.6.70.

From the above mentioned specimens it can be seen with certainty that the population of *youngi* from the "Tache de Taza" (Tazafleck), Middle Atlas, that was described but not named by Reiss (1943), is different from the nominate race of *youngi*.

For the population from Tazafleck we propose the name *timeliltica* subsp. nov. For the variation of the race we refer to the description made in the year 1943.

*The arrangement follows the systematic catalogue of Reiss & Tremewan (1967).

In the year 1943 Hugo Reiss had before him from coll. Le Cerf: 8 ♂♂ 6♀♀ from a Cedar forest near Timelilt, about 15 km east of Djebel Ahmar, 1400-1700 m, 25 and 26.6.1928; 3 ♂♂ 2♀♀ from a forest near Taffert, south-south-east of Djebel Ahmar, about 15 km from the Military Post 1565, at the foot of the north side of the Djebel bou Iblane chain, 1500-1600 m, 21.6.1929; 3 ♂♂ 1♀ from the Military Post 1565 of Djebel Ahmar, 1700-1765 m, 17-21.6.1928 and 24, 27.6.1929; 1 ♂ 1♀ from the high valley of the Oued Soufouloud, near the village of Kzar el Kebir, 2200 m, 28 and 30.6.1929.

All these localities lie south of the valley of the Oued Zloul. In addition 1 ♂ 1♀ valley of the Oued Zloul, 1200 m, 17.6.1928

Of these specimens, 12 ♂♂ 9♀♀ (Types and Paratypes) are in coll. Le Cerf in the Natural History Museum, Paris. In coll. Reiss are found as Paratypes of *timeliltica*, 2♂♂ 1♀ from a Cedar forest near Timelilt, Middle Atlas, 1400-1700 m, 25 and 26.6.1928, leg. Le Cerf; 1 ♂ 1♀ from a forest near Taffert, Middle Atlas, north side of the Djebel bou Iblane chain, 1500-1600 m, 21.6.1929, leg. Le Cerf and 1 ♂ from the Military Post 1565 of the Djebel Ahmar, 1700-1765 m, 27.6.1929, leg. Le Cerf.

Z. youngi timeliltica appears on average somewhat larger than *youngi youngi*, the wingspan and size of the forewing spots, and the edging of the latter, can be seen in figures 35-39 (1943). The red appears less brilliant. The yellow-white edging of the forewing spots is, when present, narrower and somewhat paler than in *youngi*. Forewing spot 1 is strongly enlarged, extending along the costa as far as spot 3 in 10 ♂♂ 9♀♀, and as far as spot 5 in 2 ♂♂ 2♀♀. Spot 2 is enlarged, and in 10 ♂♂ 4♀♀ is broadly enlarged almost to the height of spot 3. Spots 1 and 2 are generally confluent with the red scaling from their base along half their length, then are separated by the blue-black ground colour, but in 2 ♂♂ 1♀ these spots are completely confluent with red scaling. Spot 3 generally reaches in size spot 5. Spot 4 is in size to spots 3 and 5. In 7 ♂♂ 6♀♀ spots 3, 4 and 5 are approximately of the same size. Spot 6 is almost always parallel with the axis of the body in set specimens; it is narrowly bow-shaped, generally narrower in the upper half and in 2 ♂♂ broken up by the dark veins. Spots 3 and 4 are, in comparison with those of *youngi youngi*, more or less widely separated in 2 ♂♂ 4♀♀, otherwise (1 ♂ excepted) these spots are joined by the yellow-white edging. In 1 ♂ 1♀ the forewing spots are without the pale edging. 4 ♂♂ 4♀♀ show distinct yellow-white edging around spots 2, 3, 4 and 5. 3 ♂♂ 2♀♀ have spots 3, 4 and 5 narrowly connected with yellow-white scaling along the veins, and in 3 ♂♂, 1♀ this yellow-white edging is suffused and connected to spot 2, as in the Type ♂ of *youngi*, see figure 39 (1943). The remaining specimens have rudimentary edging. In all specimens, spots 1 and 6 are without pale edging of the spots. In the specimens of *youngi youngi* before us, 1 ♂ 2♀♀ have rudimentary yellowish edging around spots 1 and 6. 1 ♂ 2♀♀ of *youngi* have, when compared with *timeliltica*, a dis-

tinct narrow line of yellow scales along the inner margin of the forewing, that however is joined to spots 2 and 4 only in 1 ♂; in 2 ♀♀ the edging of spot 2 is enlarged and is only narrowly separated from spot 4 by the dark ground colour. This yellowish line even goes as far as spot 4 in 1 ♂ 1 ♀.

The dark hindwing border often appears in *timeliltica* somewhat less strong than in *youngi*; in the latter it is generally visible as a distinct blue-black peg before the fold which is often less distinct in *timeliltica*.

The underside of the wing is somewhat more matt in *timeliltica* than in *youngi*.

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Colony Fission in the House Ant *Monomorium indicum* Forel (Hymenoptera : Formicidae)

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ABSTRACT. Some observations on colony fission and nest mates of the house ant *Monomorium indicum* Forel, from Punjab, are given.



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