

**Zerynthia polyxena DENIS & SCHIFFERMÜLLER from Venetian Prealps:  
a new subspecies**

(Lepidoptera: Papilionidae)

by

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**Riassunto:** Gli autori descrivono *Zerynthia polyxena decastroi* subsp. nov. delle Prealpi Venete, comparandola con le popolazioni contigue dell'Italia settentrionale e della Jugoslavia nord-occidentale.

**Abstract:** A new subspecies of *Zerynthia polyxena* DENIS & SCHIFFERMÜLLER from Venetian Prealps is described and named *Z. p. decastroi* subsp. nov. The new subspecies is compared with nearby populations from northern Italy and north-western Yugoslavia.

**Introduction**

Since the publication by VERITY (1947), except for some short notes by STORAGE (1953, 1962, 1963, 1964) no further attention was paid to the Italian populations of *Zerynthia polyxena*. From then more localities have been discovered, where this species is present, both in northern and southern Italy. The authors, in view of a revision of the Italian populations of *Zerynthia polyxena* (in prep.), and taking hint from ZANGHERI (1975) and from the comparison of significant material preserved in their own and other private and public collections, describe as new the *Z. polyxena* populations from Venetian Prealps as

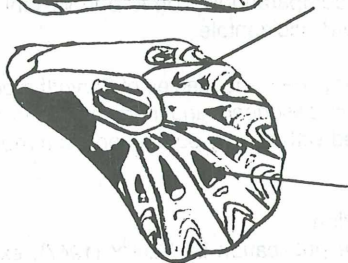
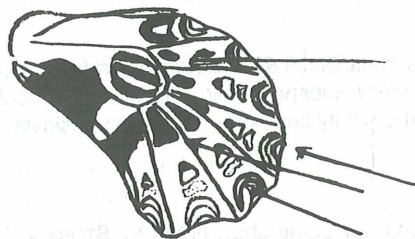
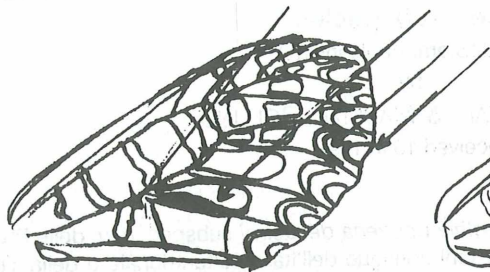
*Zerynthia polyxena decastroi* subsp. nov.

Holotype ♂: Veneto-Revine (TV), 20.IV.1987, 300m, leg. SALA G., in coll. SALA, Salò (BS), Italy.

**Description**

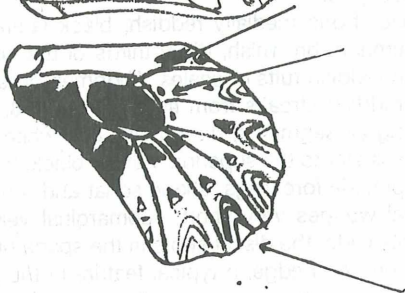
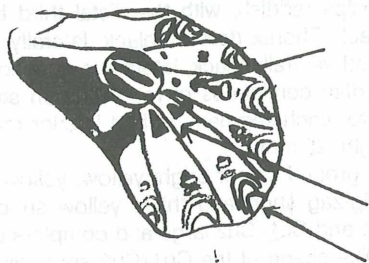
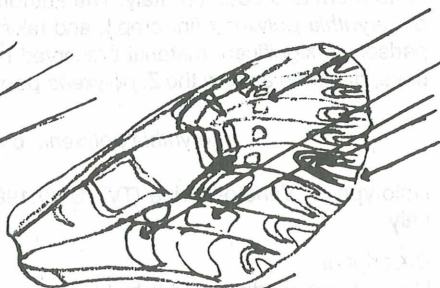
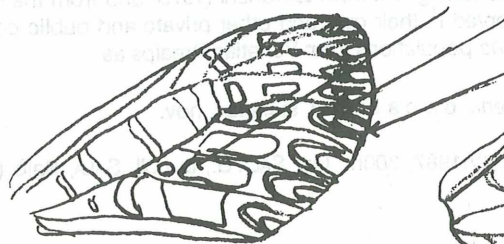
Head: frons medially reddish, black laterally; palps reddish, with the distal third black. Antennae: brownish, distal thirds of the club black. Thorax dorsally black, laterally black with reddish tufts of scales. Abdomen dorsally and ventrally black, laterally a superior line of reddish streaks from segment no. 5-8, a median continuous of red-yellowish streaks along all segments, dotted with one white spot for each segment, a third inferior reddish line similar to the superior. Valvae: black. FW length: 25 mm.

Upperside forewings: shape squat and rounded, ground colour bright yellow; yellow marginal wedges very short, submarginal yellow zig-zag short and thick; yellow subcostal spots wide; the discal spots in the space M3/Cu1 and Cu1/Cu2 large and complete as far as the cell's edge, a typical feature in the pear-like shape of the Cu1/Cu2 spot, with the



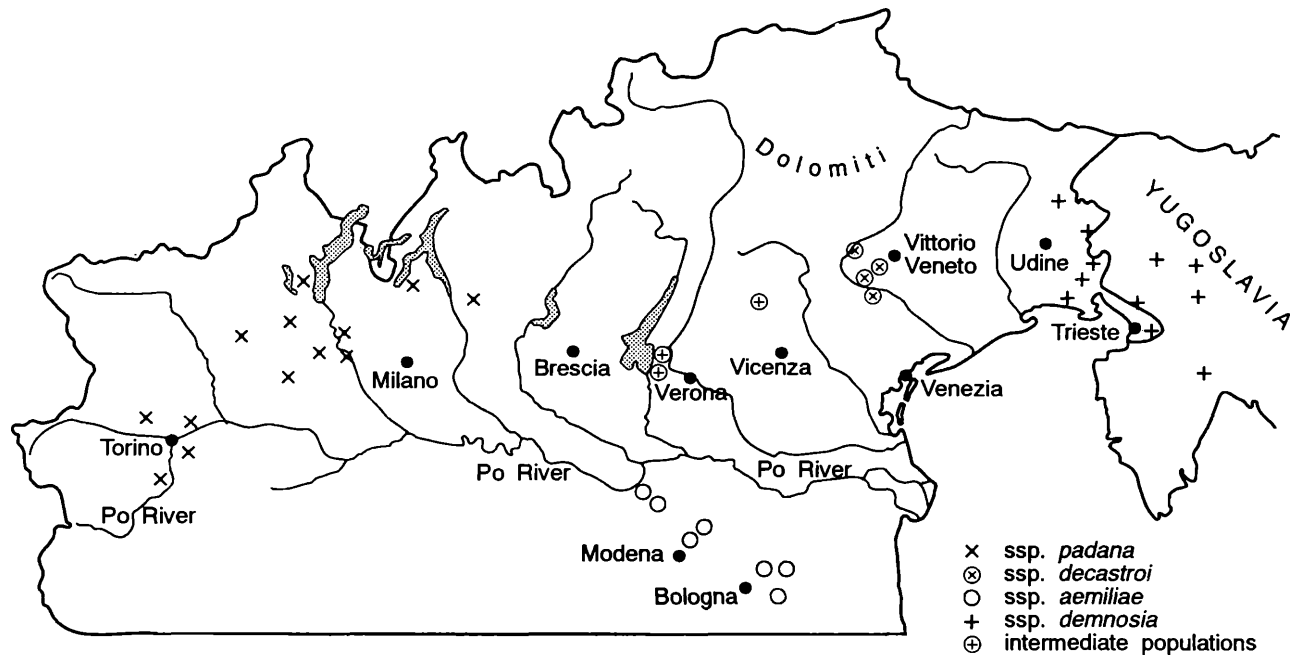
SSP. DECASTROI

SSP. PADANA



SSP. DERMOSIA

SSP. AETILIAE



Distribution map of Northern Italy subspecies of *Zerynthia polyxena*

distal tip rounded; the yellow discal spot near the base of a quadrangular shape with the outer border inclined towards the interior, pointed in the middle; a subcostal red spot present.

Upperside hindwings: shape rounded, yellow marginal wedges little pronounced, submarginal yellow zig-zag rounded, little deep; red and blue spots well marked, the small discal black spots present in all spaces, well pronounced.

#### Paratypes:

1 ♂ 6.IV.1986, 2 ♂♂ 7.IV.1986, 2 ♂♂ 16.IV.1987, 2 ♂♂ 18.IV.1987, 1 ♂ 30.III.1989, 1 ♂ 24.III.1990, 3 ♂♂ 29.III.1990, 1 ♀ 14.IV.1987, 2 ♀♀ 25.IV.1987, 1 ♀ 30.III.1989, 1 ♀ 12.IV.1991, all from Revine (Treviso prov.), 300m, in coll. SALA, Salò (BS) and 1 ♂, 1 ♀ in EMEM.  
3 ♂♂ 6.IV.1986, 1 ♂ 21.IV.1986, 1 ♂ 23.IV.1987, 1 ♂ 2.IV.1988, 1 ♂ 15.IV.1988, 1 ♀ 25.IV.1988, 1 ♀ 28.III.1989, 1 ♀ 24.III.1990, 1 ♀ 1.IV.1991, 1 ♀ 17.IV.1987, 1 ♂ 25.IV.1987, 1 ♀ 31.III.1990, all from Tovenà (Treviso prov.), 250m, in coll. SALA, Salò (BS).  
1 ♂ 15.IV.1984, 1 ♂ 19.IV.1984, 7 ♂♂ 20.IV.1984, 1 ♀ 18.IV.1984, all from Cison (Treviso prov.), 250m, in coll. SALA, Salò (BS).  
2 ♀♀ 24.IV.1982, Montello (TV), in coll. SALA, Salò (BS).  
3 ♂♂ 12.IV.1983, 11.IV.1985, 2 ♀♀ 11.IV.1985, 28.IV.1987, from Tovenà (TV), 1 ♀ 22.IV.1988, from Revine (TV), all in coll. DECASTRO, Como.  
2 ♂♂, 2 ♀♀ from Revine (TV), Tovenà (TV), in coll. CAIMI, Saronno (VA).  
1 ♂ 16.IV.1987, 1 ♂ 18.IV.1987, 5 ♂♂ 13.IV.1988, 2 ♂♂ 22.IV.1988, 1 ♂ 29.III.1989, 1 ♀ 16.IV.1987, 4 ♀♀ 13.IV.1988, from Revine (TV), all in coll. BOLLINO, Lecce.  
1 ♂ 15.IV.1988, 3 ♂♂ 22.IV.1988, 1 ♂ 28.III.1989, 1 ♂ 29.III.1989, 1 ♀ 11.IV.1985, from Tovenà (TV), in coll. BOLLINO, Lecce.

#### Derivatio nominis

The new subspecies is dedicated to Dr. DECASTRO for his support into the study of Italian Papilionidae.

#### Discussion

The new subspecies is localized in an intermediate station between the populations belonging to ssp. *padana* and ssp. *aemiliae* (Po river basin) and those of ssp. *demnosia* (Friuli-Venezia, Giulia and north western Yugoslavia). Owing to the extreme location and the short period of flight, the only records from Veneto were those of Peschiera, Lazise (east Garda region) in the first years of the century until the 1930s (STORACE, 1962; WOLFSBERGER, 1965), never recorded and considered extinct; and those of Lentiai, Montello (ZANGHERI, 1975). Only in recent years the authors, thanks to the collaboration of Mr. COSTELLA, have succeeded in examining great series of examples from the environs of Vittorio, Veneto; the checking of the material in the authors' collections, that of colleagues Dr. DECASTRO, Mr. CAIMI, Mr. COSTELLA, as well as the historical collections in the museums of Florence and on Verona, led the authors to conclude that the venetian populations belong to a new subspecies.

Distinctive characters of ssp. *decastroi* subsp. nov. are: the marginal wedges of the forewings are shorter than any other ssp. examined; the yellow marginal zig-zag of the forewings are shorter and more compact than ssp. *padana* and ssp. *aemiliae*; the yellow discal spot in Cu1/Cu2 of a pear-like shape, occupying all the space as far as the cell edge

with the distal border rounded, all examples of ssp. *padana* and ssp. *aemiliae* examined had this spot divided in two, only in some specimens of ssp. *demnosia* there is the tendency of this spot to lengthen but never to fill completely the internervular space; the presence of a red subcostal spot in all specimens except one, while this red spot is generally absent in ssp. *aemiliae* and *padana* and in fifty percent of ssp. *demnosia*.

In the hindwings the new ssp. shows, with regard to the other three ssp., marginal wedges and submarginal yellow zig-zag less sharpened; the black discal spots well marked and present in all spaces, while in ssp. *aemiliae* and *padana* the spots are usually smaller and lacking in spaces R1/M1 and M1/M2, in ssp. *demnosia* the discal spots are present also in these spaces but very small; the brightness of the blue and red spots of the hindwings contrasting with the deep yellow of the discus makes this ssp. one of the finest in Italy.

#### Distribution (cf. map)

*Zerynthia polyxena decastroi* subsp. nov. is confined, until today, to the southern slopes of the Venetian Prealps, on the outskirts of Vittorio Veneto, and near Lentiai and the Montello. It prefers the clearings of woods and untilled lands where the foodplant (*Aristolochia pallida*) grows.

We received information (Dr. ADAMI, pers. comm.) that some examples have been captured in the province of Vicenza, but as we did not succeed in examining this material, we, for the present, do not include it in the new subspecies.

We decided to do the same with the old material from the east side of the lake of Garda, because the few specimens examined seem to be more related to ssp. *aemiliae*; ssp. *padana* can be separated from all other Italian ssp. for the presence in the hindwings, of well marked and sharpened black wedges surmounting the red spots; as regards ssp. *demnosia*, we do not agree with VERITY's statement who considered it only a form of ssp. *cassandra*; it has been described by FREYER (1833) from a specimen from "Istoriale", which meant the coast of N.W. Yugoslavia; our examples from this region fit well with the original picture, except for the spot in space Cu1/Cu2 in the forewings which is reduced; we consider the name "*demnosia*" perfectly valid and representing well all the populations of the Italian-Slovenian frontier as far as the Istria, with regard to this we do not agree with SJARIC (1989) who considered all Slovenian populations belonging to the nominotypical subspecies. We think that only populations near to the Yugoslavian-Austrian border can be associated with *Z. polyxena polyxena*.

#### Acknowledgements

The authors are thankful to their friend VINCENZO DECASTRO for his kind help, to Mr. COSTELLA for information about the new subspecies in its biotopes and the supply of examples; moreover they wish to thank Mrs. SARAH MASCHERINI and Dr. BAROLOZZI of the Museum "La Specola", Florence, for permission to visit the historical collection "VERITY"; last but not least many thanks to the trustees of the Natural History Museum of Verona.

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Colour plate XIII (p. 649)

- Fig. 1: *Zerynthia polyxena decastroi* subsp. nov, holotype ♂
- Fig. 2: *Zerynthia polyxena decastroi* subsp. nov, paratype ♀
- Fig. 3: *Zerynthia polyxena demnosia* ♂, Kalce (Slovenia)
- Fig. 4: *Zerynthia polyxena demnosia* ♀, Caso Montallone
- Fig. 5: *Zerynthia polyxena aemiliae* ♂
- Fig. 6: *Zerynthia polyxena aemiliae* ♀
- Fig. 7: *Zerynthia polyxena padana* ♂
- Fig. 8: *Zerynthia polyxena padana* ♀

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Fig. 1: *Zerynthia polyxena decastroii* subspec. nov, holotype ♂

Fig. 2: *Zerynthia polyxena decastroii* subspec. nov, paratype ♀

Fig. 3: *Zerynthia polyxena demnosia* ♂, Kalce (Slovenia)

Fig. 4: *Zerynthia polyxena demnosia* ♀, Caso Montallone

Fig. 5: *Zerynthia polyxena aemiliae* ♂

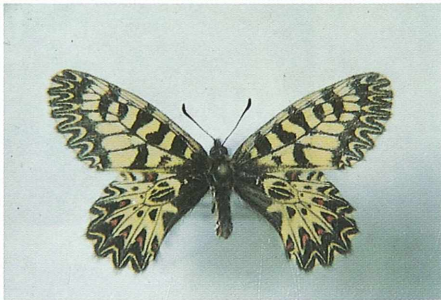
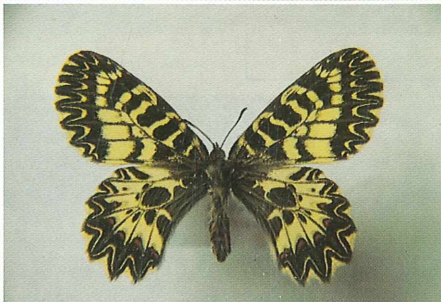
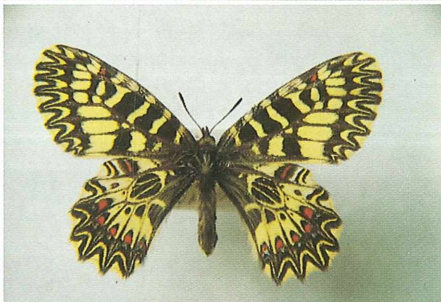
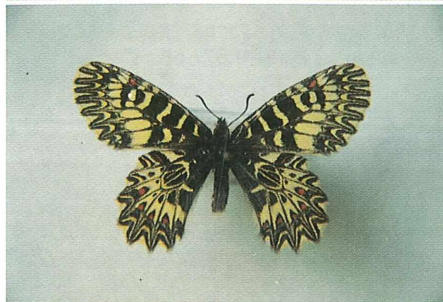
Fig. 6: *Zerynthia polyxena aemiliae* ♀

Fig. 7: *Zerynthia polyxena padana* ♂

Fig. 8: *Zerynthia polyxena padana* ♀

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Colour plate XIII





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