

## On the expansion of *Danaus chrysippus* (LINNAEUS, 1758) during the last decade in Italy

(Lepidoptera, Nymphalidae, Danainae)

by

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received 29.IX.1992

Apart from a few strays of *Danaus chrysippus* (LINNAEUS, 1758) observed in Sicily and Sardinia in 1983-1984 (GATTO, 1985; BIERMANN, 1990) a remarkable increase of the sightings of the species in Italy has occurred since 1988, when a colony was discovered in southern Apulia on *Cynanchum acutum* L. (ZILLI, 1988). In fact *D. chrysippus* has been recorded, often in colonies, from several areas of insular and peninsular Italy: Lampedusa, whole Sicily, Campania, whole Sardinia, Isole Ponziane (Latium) (BIERMANN, 1990; PROLA & PROLA, 1990; MAZZEO, 1991; STELLA, 1991; COBOLLI, pers. comm.; GRILLO & ROMANO, pers. comm.). Some specimens which have been observed in Emilia-Romagna (STELLA, 1991) and Liguria represent the northernmost sightings of *chrysippus* for both, Italy and Europe. The Ligurian record is from the surroundings of Genoa: Voltri, 29.IX.1990, 1 ♂ feeding on flowers of *Inula viscosa* L. (teste et phot. BORGIO).

Before the above referred quotations, *D. chrysippus* was known to have occurred in Italy only in 1806-1807 in the surroundings of Naples (Torre del Greco) on *Gomphocarpus fruticosus* R. BR. (GAGLIARDI, [1808]; VERITY, 1950) (fig. 1).

The spreading of the species in Italy has been clearly linked with the warm conditions prevailing in the quinquennium 1986-1990 and reached its maximum in 1990, year characterized by an unusually mild winter (e.g. fig. 2). A similar trend was also shown by other two – mainly paleotropical – migrant species definitely uncommon in Italy, viz. *Hippotion celerio* (LINNAEUS, 1758) and *Spodoptera ciliium* (GUENÉE, 1852).

From 1990 onwards the climate has seemingly turned to cooler conditions, as a matter of fact we have no news of any recent record of *chrysippus* from Italy. Any recent information about the occurrence of the species in Italy is therefore welcome in order to elucidate its range dynamics according to the climatic fluctuations.

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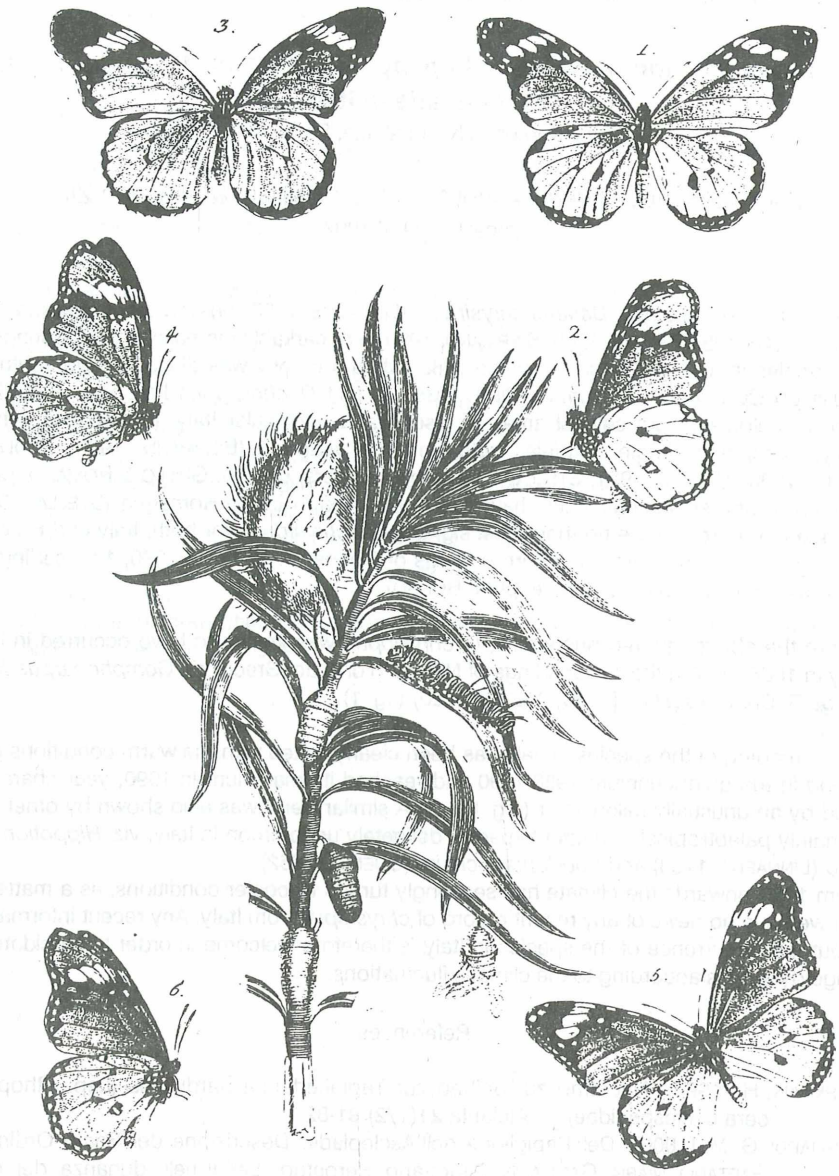


Fig. 1: The plate on *D. chrysippus* L. from the rare paper by GAGLIARDI [1808].

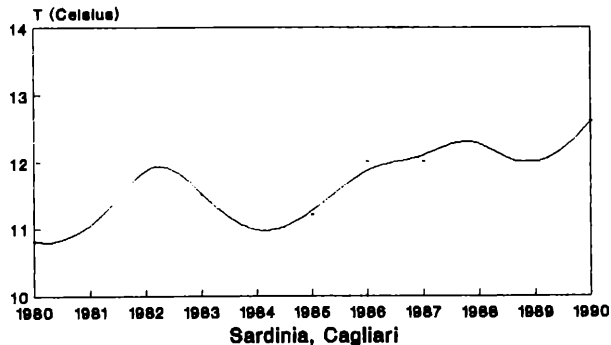
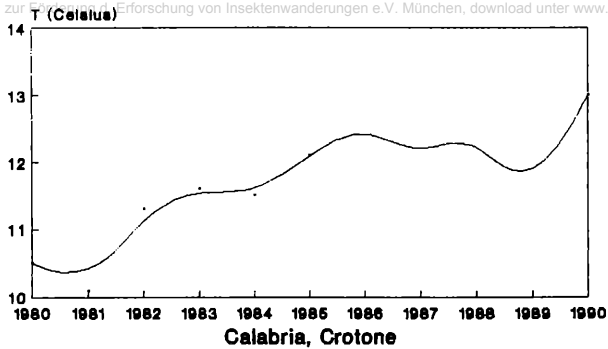


Fig. 2: Average minimum temperatures and interpolating curves of two southern Italian localities for 1980-1990 (data from Annuario Statistico Italiano, 1985, 1988, 1991, ISTAT, Rome).

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Zeitschrift/Journal: [Atalanta](#)

Jahr/Year: 1992

Band/Volume: [23](#)

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