On Zygaena Fabricius (Zygaenidae from Fars, south Iran *)

TOMMASO RACHELI & CLAS M. NAUMANN
Via G. Valmarana 86, I-00139 Roma Italy & Universität Bielefeld, Postfach 8640, D-4800 Bielefeld, Germany

Up to 1975 the genus Zygaena F. in Fars was known on the basis of the papers by Kollar (1850) and Reiss (1938), who reported the collections made by Kotschy and Fred Brandt, respectively. More recently, papers by Wiltshire (1952, 1968), Holik (1958) and Ebert (1974) appeared. However, these papers have not covered the genus Zygaena thoroughly. Tremewan (1975) gave an account of Zygaena for the whole Iran, including Fars, with very interesting notes mainly on early stages.

This is a preliminary report based on field observations of the senior author.

Collecting took place in the province of Fars; the following are the most important biotopes visited: a) Dasht-e-Arzhane biotope n°1, 2100m, 80 km SW of Shiraz. It is characterized by small ravines, the sides of which are covered with Astragalus bushes. b) Dasht-e-Arzhane biotope n°2, 2200 m, approx. 10 km far from biotope n°1. It is a hilly spot, covered with oak trees and rather humid. Here five species of Zygaena have been observed and Rhopalocera were abundant numerically and as number of species. c) Kuhenjan, 1900 m, approx. 60 km S of Shiraz. An arid, steppe biotope with Eryngium plants. Zygaena fredi Reiss is the only Zygaena observed here. d) Qader Abad Pass, 2100 m, approx; 120 km NE of Shiraz. Z. cyrus xerxes and Z. manlia were observed in a hollow covered with Eryngium bushes. e) Pass NE of Sarvestan, 2000 m, approx. 80 km SE of Shiraz. Tall umbelliferous plants were flowering together with Astragalus sp. and other thorny bushes. Z. saadi and Z. chirazica were found. An account of the collected Zygaena is given below.

Zygaena (Agrumenia) escalerae saadi Reiss, 1938. The flight of this species is close to the ground and usually slow; it is found often at rest on Marrubium crassdens (Labiatae) or visiting Astragalus bushes, as already stated by Tremewan (1975). It has been observed that the populations of Z. escalerae are predominantly yellow in the west of the country and red in the east. We follow Alberti (1976) in considering Z. saadi as a subspecies of Z. escalerae Poujade, 1900.

Zygaena (Agrumenia) cyrus xerxes Tremewan, 1975. Several specimens from the type locality, Qader Abad Pass, have been collected. The study of the genitalia and the pattern has shown that this taxon is not conspecific with Z. brandti Reiss, 1937, as observed also by Tremewan (1977). The flight is close to the ground and quite similar to that of Zygaena escalerae saadi.

*) Read by T. Racheli at the 1st European Congress of Lepidopterology.
Zygaena (Agrumenia) chirazica Reiss, 1938. This species has always been found flying with Z. escaleraí saadi, but it was much scarcer. Its resting plants are Pterocephalus persicus (Dipsacaceae) and Marrubium crassidens (Labiateae). On the wing, it was very hard to distinguish this species from Z. escaleraí saadi.

Zygaena (Mesembrynus) seitzi Reiss, 1938. This species occurred, very localized, in Dasht-e-Arzan biotope n°2. The specimens usually sat inside the bushes of an Astragalus sp. of the subgenus Tragacantha; here, specimens in copula and ♀ laying eggs were observed. Z. seitzi flies for only half an hour in the late afternoon and the♂ buzz. around the bushes of Astragalus looking for the ♀. This unusual flight period might be responsible for the few records of this species, as reported by Wiltshire (1968) and Tremewan (1975). Wiltshire (1952) states that the food plant of Z. seitzi is Prangos ferulacea (Umbelliferae). If it will be shown that Z. seitzi feeds also on Astragalus (Labiateae), this is of extreme importance for the reconstruction of the phylogeny of the genus Zygaena.

Zygaena (Mesembrynus) haematina Kollar, 1850. Only a single male collected in Dasht-e-Arzan, biotope n°2. It is practically identical in pattern with the holotype, stored in the Wien Museum.

Zygaena (Mesembrynus) frederi Reiss, 1938. Found only in Kuhenjan Pass, rarely resting on Eryngium, most of the specimens were seen flying very fast, during late afternoon. Batches of eggs have been often observed underneath the leaves of Eryngium. Its behaviour is reminiscent of that of Z. seitzi. Comparing this series of specimens with the typical material of Z. frederi and of Z. seitzi escaleraiana Holik, 1958, we found that these two taxa are conspecific.

Zygaena (Mesembrynus) manlia Lederer, 1870. Found only in Qader Abad Pass together with Z. cyrus xerxes. Nearly all specimens were found resting on Eryngium or on blade of grass; a few specimens have been observed flying heavily and lazy. This population of Z. manlia can be referred to the taxon, from the province of Esfahan, described as Z. excellens isfahanica Tremewan 1975, which we consider conspecific with Z. manlia.

Zygaena (Mesembrynus) cambysea hafis Reiss, 1938. Only a few specimens found in Dasht-e-Arzan biotope n°2. This species was bound to small open areas within the oak forest and it has always been observed flying.

References