

FIRST RECORDS OF ORTHETRUM CHRYSOSTIGMA (ODONATA, LIBELLULIDAE) BURMEISTER, 1839, FROM THE MALTESE ISLANDS

Charles GAUCI¹ and Arnold SCIBERRAS²

ABSTRACT

The first records of *Orthetrum chrysostigma* (Odonata, Libellulidae) Burmeister, 1839, from the Maltese Islands are reported in this study.

Keywords: Odonata, *Orthetrum chrysostigma*, Maltese Islands.

INTRODUCTION

At present the Maltese Odonatian fauna consists already of 17 recorded species. These records were compiled over 111 years (McLachlan, 1899; Cowley, 1940; Valletta, 1949, 1951, 1957, Sciberras et al., 2007, Ebejer et al., 2008 and Sciberras 2008 a,b,c ,2010). However, in the past decade, research in the field produced a higher abundance of species that may have well been overlooked. These species are 1 *Calopteryx* sp., 1 *Ischnura* sp., 1 *Aeshna* sp., 3 *Anax* sp., 1 *Crocothemis* sp., 1 *Selysiothemis* sp., 2 *Sympetrum* sp. and 1 *Trithemis* sp (*T. arteriosa* specimen is dubious and was recently omitted from Maltese list). The genus *Orthetrum* (Newmann, 1833) is already represented in the Maltese islands by the following 5 species: *Orthetrum brunneum* (Fonscolombe, 1837), *Orthetrum cancellatum* (Linnaeus, 1758), *Orthetrum coerulescens anseps* (Fabricius, 1798), *Orthetrum trinacria* (Selys, 1841) and *Orthetrum nitidinerve* (Selys, 1841). This work records the presence of the 18th species, i.e. *Orthetrum chrysostigma* (Burmeister, 1839) and an indication of it breeding locally.

New Records

On 12/vi/ 2010, while checking for the presence of *Odonata* at a small, shallow, artificial, fresh-water pond at the Ghadira Nature Reserve (a saline marshland), one of the authors (CG) came across an unfamiliar specimen of dragonfly resting on an *Inula crithmoides* L. shrub growing at one end of the pond. The specimen was a teneral (newly emerged adult) and, although no exuvia was found, it had probably emerged the previous evening as the sighting was made very early in the morning (0705 hrs CET) and the specimen allowed itself to be approached very closely and did not fly away while being photographed at very close quarters (Fig1&2). As the specimen can be seen and studied from the photos, the vein pattern on the wing is not yet well defined, again indicating that the specimen was a teneral and in all probability had emerged from the pond in question. The pond, which is only about 6m², was checked twice daily for the presence of *Odonata* between May and September in 2008 and 2009 and 3-4 times a week in May-July 2010 and, excluding the mentioned record, this species was never noted present *in situ*.

Identification was confirmed to be a teneral female *Orthetrum chrysostigma* after consulting Dijkstra & Lewington (2006) as well as through several pictures of this species available on the web.

¹28, ‘Skylark’, Triq il-Kissier, Mosta – cjgauci@maltanet.net

²131, ‘Arnest’, Arcade Str., Paola – bioislets@gmail.com

Another three specimens, all females, have also been sighted by one of the authors (AS). The first specimen was seen in constant flight at l-Għajn tal-Mellieħha at 13.37 hrs CET, on 19/vi/ 2008 and another specimen in the same location on 10/vii/ 2009. A third specimen was seen resting on an inaccessible tamarisk *Tamarix africana* at ix-Xifer, l/o Selmun on 13/vii/ 2010 at about 1500 hrs CET. All were recorded as this species due to the white mesothorax flanked by black lines which was very evident.

DISCUSSION

This species was not recorded in any of the literature relating to Maltese Odonata. It is interesting to note though that its first records date back to the same time of the finding of *Orthetrum nitidinerve*, possibly suggesting in that period there was another Odonata influx in the Maltese islands between the dates of 19th-25th/iv/2007 (Sciberras et al., 2007). It is described by Dijkstra & Lewington (2006) as being an ubiquitous species outside forests throughout Africa, and as not being uncommon in southern Iberia, the Canaries, coastal Turkey and adjacent Greek Islands. Till now it was recorded from Algeria, Angola, Benin, Botswana, Burkina Faso, Cameroon, Central African Republic, Chad, Crete, Cyprus, Canary Islands, the Democratic Republic of the Congo, Dodecanese Islands, Egypt, Equatorial Guinea, Ethiopia, Jordan, Gambia, Ghana, Guinea, Ivory Coast, Israel, Kenya, Liberia, Libya, Lebanon, Malawi, Mali, Mauritania, Morocco, Mozambique, Namibia, Niger, Nigeria, Portugal, Saudi Arabia, Senegal, Sierra Leone, Somalia, South Africa, Spain, Sudan, Syria, Tanzania, Tunisia, Turkey, Togo, Uganda, Zambia as well as Zimbabwe.

Other predominantly African and Asian species of *Odonata* have in the latter part of the last decade been added to the Maltese list (Ebejer, et al., 2008, Sciberras 2008, 2010). Indeed, two of these, *Selysiothemis nigra* and *Trithemis annulata*, have become common to the point of being the dominant species in some places (pers. obs.). *Orthetrum trinacria* has also become widespread although in smaller numbers (more commonly found in Gozo than the other two species). It is suspected that *Orthetrum chryostigma* will establish itself in the Maltese islands in small populations and eventually increase gradually in the same ecological manner that of *Orthetrum coerulescens anseps* (Fabricius, 1798) as its habit is very similar.

Since its sighting made 12/vi/ 2010, the Maltese name of “Kahlan Tal-Penz” (Falzon, 2010) was coined for this species.



Fig1



Fig 2

Fig1(side: note the white mesothorax), **Fig2** (Dorsal view)- *Orthetrum chryostigma* from Ghadira Nature Reserve.(Photo credits – C.Gauci)

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