

**Report on findings of the 2006 field survey
for Rosser's Sac Spider *Clubiona rosserae***

For the *Clubiona rosserae* Partnership

Report

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Invertebrate, Bird, Mammal, Reptile, Amphibian and Botanical Surveys
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Report on Findings of the 2006 Field Survey for Rosser's Sac Spider *Clubiona rosserae*

1.0 INTRODUCTION

1.1 Background

Ecological Survey & Assessment (ECOSA) was contracted to carry out a continuing survey of *Clubiona rosserae* in 2006. This work follows on from a review of the ecology of the species and field work carried out since 2002 and presented in five reports.^{1,2,3,4,5} This report should be read in conjunction with these reports. The contract was carried out under the auspices of the *Clubiona rosserae* Partnership, a collaborative partnership between Buglife- The Invertebrate Conservation Trust, English Nature, the British Arachnological Society and Anglian Water. The aims and objectives of the project in 2006 were to:

- Continue vigilance of survey at Chippenham Fen for *Clubiona rosserae*, to include;
 - Refuge traps run for the summer and some of the winter,
 - Surveys using hand search and sweeping techniques,
- Undertake a one day survey of Thompson Common for *Clubiona rosserae*
- If considered appropriate to carry out a survey of the most likely sites on the Suffolk coast to possibly include Dingle/Walberswick.

This report details the findings of the field surveys carried out between May and October 2006.

¹ ECOSA (Sept 2003), *Report on findings of the 2002-2003 field survey for Rosser's Sac Spider Clubiona rosserae*, Privately published report.

² ECOSA (June 2003), *Review of the current known biology and distribution of Rosser's Sac Spider Clubiona rosserae*, Privately published report.

³ ECOSA (May 2003), *Clubiona rosserae Initial Surveys of potential sites*, Privately published report.

⁴ Report on findings of the 2003-2004 field survey for Rosser's Sac Spider *Clubiona rosserae*

⁵ ECOSA (January 2006) Report on findings of the 2005 field survey for Rosser's Sac Spider *Clubiona rosserae*, Privately published report.

2.0 METHODS

2.1 Introduction

Previous surveys for the species have adopted a standardised approach to sampling for the species, however, in 2005 and 2006 a non-standardised approach was used. The aims of the 2006 survey were to carry out surveys at a lower intensity than in previous years but to continue vigilance for the species. During all surveys only adult *Clubiona rosserae/stagnatilis* were collected, these were determined by examination with a 10x hand-lens in the field, all immature spiders were released. Adult spiders were taken for later identification using a microscope.

2.2 Chippenham

A total of 6 corrugated cardboard refugia traps were erected at Chippenham Fen on 28th May 2006. These traps consisted of rolls of corrugated cardboard measuring approximately 300x150mm. These rolls of cardboard were then wrapped in a single layer of bubble wrap leaving one end of the cardboard exposed. This bubble wrap was used to provide some additional refugia for spiders and to provide the cardboard with a degree of protection from the rain. The traps were operate as replicate pairs and in total three habitats were sampled using these traps:

- Two traps were placed beneath the surface layer of litter within piles of cut fen vegetation in compartment 11;
- Two traps were placed mounted on canes approximately 150mm above ground level in species rich fen vegetation of compartment 8; and,
- Two traps were placed in saw sedge fen mounted at approximately 450mm on canes in compartment 4.

These traps were then collected at 6 week intervals in mid-July, late August, mid October and late November. On collection, the traps were placed in a white plastic tray and carefully unwrapped on site. Any *Clubiona* were then to be collected for later identification. The traps were then reassembled and left on site. On completion of the survey in late November all traps were removed from the site.

A total of 4 visual searching sessions were carried out between May and October 2006, these were carried out on the same days as the refugia traps were collected. During these visits much of the survey methodology was based on visual searching with sweep netting, grubbing and visual searches carried out. Most of these visits lasted between 2 and 6 hours, usually

from 11:00. Habitats targeted included fen vegetation, reedbed, marginal habitat, cut sedge piles, saw sedge beds, wet grassland and rush-pasture.

2.3 Survey of Other sites

Thompson Common was surveyed on 14th June 2006. The survey involved visual survey methods only including sweep netting, searches for *Clubiona* egg cells and grubbing. Samples of adult *Clubiona* were taken for latter identification. Habitats surveyed included purple moor-grass stands, reedbeds, fen vegetation and mixed vegetation beside pingos.

The Suffolk Coast National Nature Reserve (NNR) was visited on 15th June 2006. The survey consisted of a simple walkover survey to assess the potential suitability of the habitat for *Clubiona rosserae* and no samples were taken.

3.0 RESULTS

3.1 Chippenham Fen and Thompson Common

No *Clubiona rosserae* were recorded from Chippenham Fen or Thompson Fen during the course of the survey. Table 1 shows the results of the samples taken from the refugia traps. The traps yielded relatively low numbers of arachnids given the period of time that they were left in the field

Table 1 Species taken from Refuge Traps Set at Chippenham Fen

	Cut Fen Vegetation	150mm Above Ground in Fen	450mm Above Ground in Saw Sedge
<i>Drassodes cupreus</i>	4		
<i>Zelotes latreillei</i>	4		
<i>Clubiona stagnatilis</i>	2	6	1
<i>Clubiona lutescens</i>	1		1
<i>Clubiona phragmites</i>		8	11
<i>Zora spinimana</i>	11		
<i>Xysticus cristatus</i>	3	9	2
<i>Tibellus oblongus</i>		4	
<i>Marpissa radiata</i>		1	2
<i>Euophrys frontalis</i>			2
<i>Pardosa amentata</i>	2		
<i>Tetragnatha extensa</i>		9	13

Tables 2 and 3 present totals of *C.stagnatilis* taken from Chippenham Fen and Thompson Common. During the surveys greatest numbers of *C.stagnatilis* were taken from species rich fen vegetation. Few (9 in total) were taken from reedbeds and fewer (4 in total) were taken from other habitats. *C.phragmites* tends to dominate within reedbeds and saw sedge beds, presumably these larger spiders are more able to fold the larger leaves of saw sedge and common reed.

Table 2 Numbers of *C.stagnatilis* taken from Chippenham Fen and Thompson Common

Site	No. <i>C.stagnatilis</i> sampled
Hopton Fen	21
Thompson Common	12

Table 3 shows the numbers of *C.stagnatilis* taken from Chippenham Fen and Thompson Common. Numbers recorded followed the established bimodal peak in activity of *C.stagnatilis* with numbers of adults peaking during the spring and autumn periods.

Table 3 Numbers of *C.stagnatilis* taken from Chippenham Fen and Thompson Common

	M	J	J	A	S	O	N	Total
Adult male	3	2	0	1	3	4	1	14
Adult female	3	4	1	2	4	3	2	19
Total	6	6	1	3	7	7	3	33

3.2 Suffolk Coast National Nature Reserve (NNR)

The Suffolk Coast NNR comprises of three reserves, Walberswick, Hen Reedbed and Dingle Marshes. Of these the Dingle Marshes is predominately saline and unlikely to support *C.rosserae*. However, both Walberswick and Hen Reedbed support significant elements of reedbed, grazing marsh, fens and dykes. The most suitable site is probably Hen Reedbed which supports the most extensive areas of fen and dyke habitat. However, much many of these areas have developed through management by the RSPB and Suffolk Wildlife Trust on former grazing marsh that was flooded during the wartime defence in the 1940's. As a result there has been a lack of habitat stability through much of this area a factor that may reduce its potential suitability for *C.rosserae*.

4.0 DISCUSSION

The surveys carried out in 2006 failed to produce any records of *C.rosserae* and there have been no records of the species in the UK since the 2002 record from Botany Bay. The summer of 2006 was particularly dry with near drought conditions and *Clubiona* were particularly scarce during the surveys carried out. It may be that animals enter a state of dormancy during such protracted dry periods as were encountered in 2006.

During 2006 it was learned that the record of *C.rosserae* from Tuddenham Fen in 1969 was identified in error, the specimen has been re-identified as *C.stagnatilis*. The site should be deleted from the list of confirmed sites as detailed in the review of the status of *C.rosserae*.⁶ Therefore, the confirmed UK records are from Chippenham Fen National Nature Reserve (Cambridgeshire), Botany Bay at Lakenheath Fen RSPB Reserve (Suffolk). Both Botany Bay and Chippenham Fen have been intensively surveyed for the species over recent years with no new records of the species arising. The continued existence of the species within the UK appears to be extremely precarious.

⁶ ECOSA (June 2003), *Review of the current known biology and distribution of Rosser's Sac Spider Clubiona rosserae*, Privately published report.