

## *Ctenicera pectinicornis* (Linnaeus, 1758) (Col., Elateridae) in Worcestershire

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### Introduction

A population of the click beetle *Ctenicera pectinicornis* (Linnaeus, 1758) discovered at Shakenhurst in north-west Worcestershire prompts this report. Recently emerged adult male beetles were observed by K. McGee (KM) resting openly on foliage during warm sunny conditions close to the former railway line between Bewdley and Wooferton and the River Rea (SO6716573200) which forms the county boundary with Shropshire. The first record was on 18<sup>th</sup> May 2020 followed by a further five beetles during similar weather two days later (02). In the following year approximately thirty males were observed on 31<sup>st</sup> May either in short flight or climbing/resting on foliage during hot sunny weather, probably as part of a synchronised emergence. Females were infrequently observed preferring to remain close to the ground in lush vegetation (Sutton, 2004). More recently six males were observed on 22<sup>nd</sup> May 2022 so that all records from the site to date are from the second half of May during warm settled weather. These observations are on what is known as the Shakenhurst Estate and there are no other immediately local records.

### Discussion

The Shakenhurst population of *C. pectinicornis* is centred on a sheltered open depression (01) at 100 m a.s.l. dotted with many ant-hills created by *Lasius flavus* (F., 1781). The solid geology represents the Silurian Raglan Mudstone Formation. Beetles occur especially at the base of a west-facing slope bordering a block of woodland containing mature Scots Pine *Pinus sylvestris* L., Norway Spruce *Picea abies* (L.) Karsten, Beech *Fagus sylvatica* L., Ash *Fraxinus excelsior* L. and Yew *Taxus baccata* L. The woodland is of ancient origin although parts were replanted with conifers during the twentieth century. The depression is dominated by False Oat-grass *Arrhenatherum elatius* (L.) P. Beauv. ex. J. S. & C. Presl and Cock's-foot Grass *Dactylis glomerata* L. with extensive stands of Bracken *Pteridium aquilinum* (L.) Kuhn and Meadowsweet *Filipendula ulmaria* (L.) Maxim. Also present in low quantities are bramble *Rubus fruticosus* agg., Red Fescue *Festuca rubra* L., Yorkshire Fog *Holcus lanatus* L., Bluebell *Hyacinthoides non-scripta* (L.) Chouard ex. Rothm., Marsh Thistle *Cirsium palustre* (L.) Scop., Broad-leaved Dock *Rumex obtusifolius* L., Lady's Bedstraw *Galium verum* L. and Hogweed *Heracleum sphondylium* L. The main period of beetle activity coincides with the active growth of these plants.



01. Shakenhurst looking north-west on 20<sup>th</sup> May 2020 showing the depression in which the population of *C. pectinicornis* described here is concentrated. Titterstone Clee Hill is visible in the background. Kevin McGee.

According to NBN Atlas (accessed 2<sup>nd</sup> March 2023) *C. pectinicornis* is a Nationally Rare species with scattered records mostly in central England and Wales. There are also distinct population clusters in Yorkshire and the southern Scottish Highlands north-west of Glasgow. Populations in both the Shropshire and Worcestershire Wyre Forest are localised but well-known and include sightings by G. H. Ashe in 1923, Dr N. E. Hickin (Worcestershire SO7276) on 5<sup>th</sup> June 1968 (McGee & Whitehead, 2003) and by KM (Shropshire) in a meadow by Dowles Brook on 2<sup>nd</sup> May 1999. Elsewhere Brett Westwood (pers. comm.) has observed *C. pectinicornis* in low-lying meadows flanking the River Teme near Tenbury Wells, Worcestershire. A record from Titterstone Clee Hill (Anon., 9<sup>th</sup> July 2006) is possibly a misidentified *Ctenicera cuprea* (Fabricius, 1775), a more widespread species associated with neutral or acidic grassland in western and northern Britain and recorded quite frequently on Clee Hill (NBN Atlas, 2<sup>nd</sup> March 2023). Further south *C. pectinicornis* appears to be increasingly rare. P. F. Whitehead has records from the early Jurassic Marlstone Rock platforms on Bredon Hill (Whitehead, 1992) but not since 28<sup>th</sup> May 1993 with the implication of rarity and decline. These observations align closely with statements made by Alexander (2018) in relation to Gloucestershire populations. *Ctenicera pectinicornis* has a predilection for moist well-drained floristically diverse neutral sediments and has doubtless declined following the modification of extensive traditional agroecosystems. The key mineralogy at the Bredon Hill site and Shakenhurst is not dissimilar and it seems likely that *C. pectinicornis* is a post-glacial relict presently inhabiting geologically-determined refugia.



02. Male *Ctenicera pectinicornis* on emergent Meadowsweet at Shakenhurst on 20 May 2020. Kevin. McGee.



03. Male *Ctenicera pectinicornis* at Shakenhurst on 31 May 2021, part of a synchronised emergence of 30 individuals. Kevin McGee.

Larvae of *C. pectinicornis* develop in soil amongst plant roots, in particular those of Meadowsweet, and the adults have a short season with most records during May and June (Sutton, 2004). Perhaps *C. pectinicornis* remains undiscovered in suitable habitat fragments elsewhere in Worcestershire.

#### Acknowledgements

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#### References

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#### Images

- 01.** Shakenhurst looking north-west on 20 May 2020 showing the depression in which the population of *C. pectinicornis* described here is concentrated. Titterstone Clee Hill is visible in the background. Kevin McGee.
- 02.** Male *Ctenicera pectinicornis* on emergent Meadowsweet at Shakenhurst on 20 May 2020. Kevin McGee.
- 03.** Male *Ctenicera pectinicornis* at Shakenhurst on 31 May 2021, part of a synchronised emergence of 30 individuals.. Kevin McGee.