

***Pandivirilia melaleuca* (Loew) and *Pocota personata* (Harris) (Diptera: Therevidae & Syrphidae) reared from a rot-hole in *Fagus* in western Cantabria, Spain**

Keith N. A. Alexander

59 Sweetbrier Lane, Heavitree, Exeter EX1 3AQ, Reino Unido.
Keith.alexander@waitrose.com

Abstract: The presence of the Therevidae *Pandivirilia melaleuca* (Loew) is recorded for the first time in Spain. The Syrphidae *Pocota personata* (Harris) was associated. Data on their ecology and European ranges are presented.

Key words: Diptera, Syrphidae, Therevidae, *Pandivirilia melaleuca*, *Pocota personata*

***Pandivirilia melaleuca* (Loew) y *Pocota personata* (Harris) (Diptera: Therevidae & Syrphidae) criados de una oquedad en *Fagus* en Cantabria occidental (España)**

Resumen: Se cita por vez primera para la Península Ibérica el terévido *Pandivirilia melaleuca* (Loew) y el sírfido *Pocota personata* (Harris). Datos sobre su ecología y distribución en Europa, son también presentados.

Palabras clave: Diptera, Syrphidae, Therevidae, *Pandivirilia melaleuca*, *Pocota personata*.

Introduction

A larva of the therevid *Pandivirilia melaleuca* was discovered by the author in Spain during 2004, together with a puparia of the hoverfly *Pocota personata*. Neither species was known from Spain at the time. The adult hoverfly soon emerged from its puparia and the record was reported as part of a larger article on the saproxylic insect fauna of the wood pasture habitat on the Cordillera Cantábrica in Western Cantabria (Alexander, 2005a). The record was also referred to in another article on the larval habitat (Alexander, 2005b). The therevid larva pupated much later and the adult fly which emerged was subsequently identified as *Pandivirilia melaleuca*.

Details of the records

A male *Pandivirilia melaleuca* (Diptera: Therevidae) was reared from a larva found amongst dry debris of decaying wood in a cavity in the trunk of a live beech tree *Fagus sylvatica*, April 20th 2004. A male *Pocota personata* was reared from a puparial case found amongst the same debris. The *Pandivirilia* was identified using van Veen (2005). The *Pocota* was identified using Stubbs & Falk (2002) and the identification later confirmed by R.K.A. Morris and S.G. Ball. The *Pocota personata* specimen has been passed to CEUA (Colección Entomológica, Universidad de Alicante, Spain).

The beech tree lies in the area of Rebal de la Cruz and Peña Carbonera (82-I Tudanca; 4° 29' 20" W, 43° 05' 40" N to 4° 31' 10" W, 43° 05' 30" N), between the villages of Lamedo and Valdeprado. This area has many magnificent ancient oaks and beeches along the ridge between 1100m and 1345m altitude.

The tree was of coppard form – managed by cutting somewhere between a coppice stool and a pollard - with a few main limbs recently sawn off to improve access along a track. One of the sawn limbs had previously been hollowed by a heartwood decay fungus and the cavity exposed by the cut was full of dry debris. Although the accessible debris was dry it seems probable that moister condition prevailed deeper into the hollow bough and that the fly larvae had perhaps moved into the drier material to be closer to the outside before pupating. The cavity was found at about 0.5m above ground level. The beech tree was in a trackside situation and open to sunshine, although the surrounding area was more or less closed canopy stored beech coppice.

European range

The range of *Pandivirilia melaleuca* is given in van Veen (2005) as the central belt of the Palaearctic region, from Great Britain to the Pacific coast. It has not previously been reported from the Iberian Peninsula (A. Melic, pers. comm.).

The European range of *Pocota personata* is given in Speight (2006) as from southern Sweden south to the Pyrenees; from Britain eastwards through central and southern Europe (Italy, the former Yugoslavia) into European parts of Russia and on to the Caucasus. Speight (pers. comm.) has confirmed that no Spanish records had been reported and this has been verified by Dra. M^a Angeles Marcos García of CIBIO at Alicante University.

Ecology

Van Veen (2005) describes the preferred environment of *Pandivirilia melaleuca* as *Quercus* forests. In Britain it has also normally been associated with old *Quercus robur* trees in ancient forest. However, Alexander (2008) reports a rearing record from an old *Pyrus communis* in a different area of ancient forest. The habitat required by the larval stage is actually accumulations of dry friable debris in the base of tree cavities following fungal decay of the heartwood. The species of tree is not important. *P. melaleuca* larvae are predators, attacking the larvae of other insects inhabiting the debris. Larvae of the hoverfly *P. personata* are probably one such prey item.

Speight (2006) describes the preferred environment of *Pocota personata* as *Fagus* forest containing overmature and senescent trees. The larvae develop inside wet decaying heartwood in cavities in old trees. The adults are largely arboreal, descending only to visit flowers of understorey trees and shrubs; they may occasionally be found at rest on the trunks of trees near the entrance to rot-holes. However, as with *P. melaleuca*, it is the condition of the decaying wood that is important rather than the tree species, and *P. personata* has been associated with a wide variety of broad-leaved tree species in Britain.

Both fly species are regarded as rare 'old growth' specialties in Britain and both have British Red Data Book status (Falk, 1991). It seems likely that they are also relict old growth species in Spain.

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