

Speleobiology in the Cantabrian Mountain karst massif of northern Spain

Tom Thomson^{1,2} and Fergus McBurney²

¹ Email: Tom.thomson@research.darkelement.co.uk

Department of Entomology (Origins), Natural History Museum, Cromwell Road, London, SW7 5BD.

² Previously at the University of Plymouth

The Matienzo karst entomology project is an independent research initiative working within the international caving community that is supported by the BCRA, the Natural History Museum, London, and the University of Plymouth. The aim is to study the fauna of the caves in the Matienzo basin of the central Cantabrian karst, there having been minimal work to date on the invertebrate life within these cave systems. Additionally, no formal scientific work has been carried out to study this specific karst massif or collect enough specimens to create a checklist of species. Only very select data exists for the wider region, and this is only on specific groups. This larger Iberian karst region includes the Picos de Europa and the Spanish Pyrenees. However, whereas both these areas are rich with speleological interest, they differ environmentally from the study area. Personal observations in the course of exploration suggested that the fauna are also significantly different, as supported by the first season of fieldwork. The study is being continued in a variety of environments and karst habitats by voluntary inputs from visiting speleologists throughout the year. This should supplement a first draft checklist of species for each locality. The initial phase of work was focused on testing of trapping methods, distribution linkages and cohabitant relationships between species. More tentatively, the project will study relationships at a higher level between taxon groups and also the distribution of arachnid species in cave entrance zones. This will enable an investigation into the relationship of species distribution and population density under two key sets of variables: (a) cave topography in terms of size, shape and availability of refuges for web building and shelter, and (b) environmental factors of air flow, temperature, humidity and illumination.

