



The discovery of *Microniphargus leruthi* Schellenberg, 1934 (Crustacea: Amphipoda: Niphargidae) in Britain and its distribution in the British Isles

LEE R.F.D. KNIGHT¹ & TERENCE GLEDHILL^{2,3}

¹No.1, The Linhay, North Kenwood Farm, Oxton, Nr Kenton, Devon, EX6 8EX, United Kingdom. E-mail: lee.knight@talk21.com

²Freshwater Biological Association, The Ferry Landing, Far Sawrey, Ambleside, Cumbria, LA22 0LP, United Kingdom.

E-mail: tgledhill@fba.org.uk

³Corresponding author

Abstract

Salient taxonomic characters of *Microniphargus leruthi* Schellenberg, 1934 are given and figured together with some new observations and an account of its discovery in Britain. The current known distribution of this species within the British Isles is presented.

Key words: *Microniphargus*, Amphipoda, discovery, distribution, British Isles

Introduction

The stygobitic amphipod *Microniphargus leruthi* Schellenberg, 1934 (Plate 1a) has specific characters such as its small size (ca. 2 mm), the morphology of the mandibular palp, gnathopods and telson, etc. that set it apart from other genera in the Niphargidae (Karaman and Ruffo, 1986). The third segment (terminal) of the mandibular palp (Fig.1c) has four E-setae; a fringe of D-setae is absent but a pubescent (brush-like) area of fine setae is present on the lateral face (T.G. personal observation). Additionally, the ventrodiscal area of segment two appears to be finely ridged. Gnathopod 1 (Fig.1a, Plate 1b) has the somewhat rectangular propodus slightly longer than the carpus but narrower than its distal height and the palmar angle smoothly rounded. The carpus has a ventrodiscal hyaline ‘napped’ (‘gerauhtem’, Schellenberg, 1942 p.81) (? finely denticulate) protrusion with two long distal setae each side (Fig. 1a; Plate 1b,c and d). Gnathopod 2 (Fig.3) propodus is longer than that of gnathopod 1 and longer than the carpus. The carpus also has a distoventral hyaline ‘napped’ protrusion (Schellenberg, 1942 p.81 ‘----jedoch der Carpus ohne deutlichen Hinterlappen’), with two long distal setae on each side which is however, not as prominent as that of the carpus of gnathopod 1 (Fig.1b). The scanning electron micrographs (Plate 1c,d) suggest that the ‘napping’ is more-or-less linear in arrangement and that the individually raised ‘points’ (denticles) are distally bifurcate. The telson (Fig.1d) is squarish with a V-shaped notch, as opposed to a cleft/split in other niphargids, extending to about half way, the telson lobes each with one terminal seta and a fine distolateral seta.

Distribution and discovery

Prior to 2006, *Microniphargus leruthi* was thought to have a rather limited range between the Ardennes and the northern Rhine region (Karaman and Ruffo, 1986) including Belgium (Schellenberg, 1934), Luxembourg (Hoffmann, 1963) and Germany (Spangenberg, 1973).

In 2006 *M. leruthi* was discovered in two boreholes in the Republic of Ireland, in the counties of Cork and Louth (Arnscheidt *et al.* 2008). At both locations it was found with the Irish endemic *Niphargus irlandicus*