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**The Hemerodromiinae (Diptera: Empididae) of New Zealand  
II. *Chelipoda* Macquart**

ADRIAN R. PLANT



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## The Hemerodromiinae (Diptera: Empididae) of New Zealand

### II. *Chelipoda* Macquart

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## Abstract

The genus *Chelipoda* Macquart in New Zealand is revised; full descriptions and keys are provided for all 38 species and 22 new species are recognized: *C. aritarita* **sp. n.**, *C. atrocitas* **sp. n.**, *C. australpina* **sp. n.**, *C. brevipennis* **sp. n.**, *C. cornigera* **sp. n.**, *C. cycloseta* **sp. n.**, *C. didhami* **sp. n.**, *C. dominatrix* **sp. n.**, *C. ferocitrix* **sp. n.**, *C. fuscoptera* **sp. n.**, *C. gracilis* **sp. n.**, *C. lateralis* **sp. n.**, *C. macrostigma* **sp. n.**, *C. mediolinea* **sp. n.**, *C. monorhabdos* **sp. n.**, *C. puhihiroa* **sp. n.**, *C. rakiuraensis* **sp. n.**, *C. rangopango* **sp. n.**, *C. tainuia* **sp. n.**, *C. tangerina* **sp. n.**, *C. ultraferox* **sp. n.** and *C. venatrix* **sp. n.** Lectotypes are designated for *C. oblinita* Collin and *C. oblata* Collin. Lectotypes and paralectotypes are designated for *C. abdita* Collin, *C. abjecta* Collin, *C. consignata* Collin, *C. delecta* Collin, *C. inconspicua* Collin, *C. interposita* Collin, *C. longicornis* Collin, *C. moderata* Collin, *C. modica* Collin, *C. recurva* Collin, *C. secreta* Collin and *C. trepida* Collin. *C. recurva* Collin **syn. n.** is designated a junior synonym of *C. mirabilis* Collin. A high incidence of profound sexual dimorphism is reported and structure-function relationships of exaggerated male characters are explored. Cladistic analysis resolved two clades characterised by degree of thoracic elongation, male genital flexion, fusion of cerci with epanthial lobes and shape of cell *cup*. It is hypothesized that one lineage gave rise to Palaearctic and Nearctic forms while the other lineage has a ‘Gondwanan’ distribution. Loss of crossvein *dm-cu* in *Phyllodromia* Zetterstedt is interpreted as a homoplasy which has occurred in both lineages of *Chelipoda* and of no generic significance. Relationships with other *Chelipoda*-like genera *Ptilophyllodromia* Bezzi and *Monodromia* Collin are discussed and current knowledge of diversity, distribution, ecology and behaviour is summarised.

**Key words:** Diptera, Empidoidea, Empididae, Hemerodromiinae, *Chelipoda*, New Zealand, phylogeny, sexual dimorphism, diversity, distribution, behaviour, ecology

## Introduction

*Chelipoda* Macquart is a widely distributed genus of Hemerodromiinae (Empididae) with more than 60 described species found in the Palaearctic, Nearctic, Neotropical, Oriental and Australasian regions. They are small flies with strongly raptorial forelegs associated with moist and usually shaded biotopes. Modern fieldwork has revealed the genus to be a conspicuous element of the Empididae fauna of New Zealand and that it is much richer than the 17 species recognized by the early work of Miller (1923) and Collin (1928, 1931) making a reappraisal of the fauna timely. The present work on *Chelipoda* follows an earlier revision of the closely related and doubtfully distinguished genus *Phyllodromia* Zetterstedt (Plant, 2005) and of *Monodromia*