

A New Species of the Freshwater Crayfish Genus *Euastacus* (Decapoda: Parastacidae) from Northeastern New South Wales, Australia

JASON COUGHRAN

School of Environmental Science and Management,
Southern Cross University, Lismore New South Wales 2480, Australia
jcough10@scu.edu.au

ABSTRACT. A new species of the freshwater crayfish genus *Euastacus*, *E. mirangudjin*, is described from northeastern New South Wales. The species most closely resembles *E. reductus* Riek 1969, differing in spination of the chelae and in colouration. The species is recorded only from the type locality, in Toonumbar National Park, where it inhabits the rocky edges of Iron Pot Creek.

COUGHRAN, JASON, 2002. A new species of the freshwater crayfish genus *Euastacus* (Decapoda: Parastacidae) from northeastern New South Wales, Australia. *Records of the Australian Museum* 54(1): 25–30.

The genus *Euastacus* was erected by Clark (1936), separating the spiny crayfishes of the Australian mainland from those of the Tasmanian genus *Astacopsis*. Species of *Euastacus* have been described by a number of authors, the main taxonomic works having been undertaken by Clark (1936, 1941), Riek (1951, 1956, 1969) and Morgan (1986, 1988, 1997). The genus *Euastacoides* Riek was synonymised with *Euastacus* by Morgan (1988).

Five specimens of *Euastacus mirangudjin* n.sp. were caught on 6 September 2000 during a research project on *Euastacus gumar* Morgan 1997, on the eastern side of the Richmond Range in northeastern New South Wales (Fig. 1). The new species was not found at 27 other locations sampled (all within ≈ 50 km of the type locality), although the majority of these were on the western side of the Richmond Range. The specimens were caught in an area within the known distribution of two other species of *Euastacus*, *E. sulcatus* Riek 1951 and *E. valentulus* Riek 1951. However, no other species of crayfish was captured at the site where the new species was found. The specimens of this new species were immediately recognisable as being different from the above species in both morphology and

colouration. Two specimens were retained and preserved, and the other three released alive at the site of capture. Morphological details were recorded for the two specimens preserved and two of the three specimens released. The third specimen released was much smaller than the others (<15 mm occipital carapace length [OCL]) and was not subjected to the same detailed examination. The four specimens examined in detail were between 26 mm and 37 mm OCL. The largest specimen collected (37 mm OCL), a berried female, was released.

The specimens collected could not be identified with the most recent key to the genus (Morgan, 1997), either collectively or individually. The large number of distinguishing features, including several features integral to the identification of species in the genus *Euastacus*, warrant the recognition of the specimens as a new species of this genus. This species most closely resembles *E. reductus* (from central eastern New South Wales). The species is easily distinguished from other species of *Euastacus* from northeastern New South Wales, which are generally larger and/or spinier. Character states and ratios are as used by Morgan (1986, 1997).