

A record of a bite to a human arm from a species of *Opisthoncus* (Arachnida: Salticidae) in Australia

With 1 Figure

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Abstract: Effects from a bite to a human arm by a jumping spider from Australia, most probably a species of *Opisthoncus* (Arachnida: Salticidae), are recorded and discussed.

Zusammenfassung: Es wird vom Biß einer australischen Springspinne in den menschlichen Arm berichtet. Bei der Springspinne handelt es sich wahrscheinlich um eine Art der Gattung *Opisthoncus* (Arachnida: Salticidae).

Introduction

The Salticidae are a large world-wide family of arachnids, commonly known as salticids or jumping spiders. They are found almost everywhere, on bushes, fences, rocks, under bark, in and around flowers, and especially in situations warmed by direct sunlight. In recent years, there have been many articles written and published on the biology and behaviour of selected Australian genera and species of Salticidae (e.g. JACKSON 1982 a, 1982 b, 1983, 1985, 1986; HAWKESWOOD 1991 b, 1991 c, 1992), but little has been recorded on the toxicity and epidemiology of bites from these salticids. One early report by MUSGRAVE (1949) for Australian species, indicated that some salticids may be of some medical importance. MUSGRAVE (1949: 419) also briefly noted that the well known beetle collector, Dr. J. G. BROOKS of Cairns, north-eastern Queensland, was bitten on the leg by a specimen of *Mopsus mormon* (Karsch); the symptoms were a painful swelling with local discoloration which persisted for about a week.

The present report records the symptoms of a bite to a human arm from what is believed to be a specimen of *Opisthoncus* (see Fig. 1) or a similar leaf- and bark-inhabiting species of Salticidae.

Observations

During March 1993, the victim (a male, 34 years of age), was gardening at his residential abode in Murwillumbah, northeastern New South Wales (28° 18' S, 153° 23' E), when he was bitten on the proximal part of the forearm by a spider which was disturbed from amongst foliage. Although the author of this paper did not examine the offending spider, it was apparent, from the detailed description provided by the victim (who is well known to the author), that the most likely culprit was a jumping spider, most probably an *Opisthoncus* species (such as the one illustrated in Fig. 1). These spiders are common in the area during summer (November to March) on various shrubs from where they hunt for prey and do not construct a snare.

The victim first experienced a very sharp sting at the bite site, and after about 30 minutes, the area began to become inflamed. A narrow-elongate, oval-shaped inflammation, measuring about 22 cm long and 6 cm wide at the widest point (near the bite site) was produced. The whole of the infected area became somewhat oedematic and erythrematic, but



Fig. 1. An unidentified species of *Opisthoncus* (Salticidae) from the Nimbin-Murwillumbah area, north-eastern New South Wales, Australia, which is rather common in the area and is most likely to be the cause of the bite described in the text (or a related species of *Opisthoncus*). These spiders are active on foliage of various plants during the day and leap considerable distances when they are disturbed. Body length: 12–14 mm. (Photograph: T. J. Hawkeswood)

showed no signs of necrosis or haemorrhagis (haematoma). The inflamed area was sensitive to touch but was not overly painful. An antibiotic cream was applied periodically which eased the inflammation. The infected area gradually subsided within about a week, but a small, 5 mm diameter swelling, resembling a pimple, remained at the bite site. Periodically, over the following nine months, (to the present time of writing, December 1993), the pimple had grown larger, finally producing a pus exudation, followed by a reduction in size to the post-bite condition.

Comments

The data provided here and in the notes of MUSGRAVE (1949), although limited, indicate that bites from jumping spiders from Australia may cause considerable effects in some people. It is probable that many cases of bites caused by garden spiders are actually caused by jumping spiders, when they are disturbed from amongst foliage in residential gardens, or even in natural bushland. Salticids are mostly very active, do not usually build webs and are known to jump onto humans if they are disturbed (HAWKESWOOD, pers. obs.).

The effects on the skin and blood cells by the toxins from such small spiders are quite remarkable. Their toxins are no doubt highly evolved and potent in order to kill their prey very rapidly, since these spiders do not rely on webs for holding prey. Salticids must hold onto their prey with their mandibles and legs and immobilise their prey quickly before it escapes. Other hunting spiders, e.g. *Arcys* (Argiopidae), which do not construct web snares, are also known to have a painful bite (HAWKESWOOD 1991 a). The peculiar occurrence of a residual pimple-like swelling in the case noted above, may be regarded as a recurring secondary infection which should be examined by medical experts.

Data on spider bites in Australia other than those of the Red-back Spider (*Lactrodectus mactans hasselti* (Thorell), Theridiidae), Funnel-web Spiders (*Atrax* spp., Hexathelidae) and a few other species, are difficult to obtain because so little has been recorded. It is hoped that more information will be forthcoming in the near future, especially for such little known spider groups as the Salticidae.

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