

**POSSIBLE PARTHENOGENESIS IN THE HUNTSMAN SPIDER
ISOPODA INSIGNIS (ARANEAE, SPARASSIDAE)**

On the 7th of August at Lake Bonney on the River Murray an immature female *Isopoda insignis* (Thorell) huntsman spider (South Australian Museum voucher specimen N1985143) was found beneath a piece of bark on a dead *Eucalyptus* tree. It was caught, returned to Adelaide, and kept in a large plastic container, being fed occasionally with a large blowfly. In October the spider underwent its final moult to become a sexually mature female. During its captivity the spider was kept in complete isolation from all other spiders. During the early morning on the 26th of December a single eggsac was laid on the bottom of the container. It was white, lenticular, 35mm in diameter, 5 mm in height and attached by a few lateral non-viscid threads to the container bottom. During incubation the mother ceased feeding and guarded the eggsac with her body. The spiderlings hatched before dawn on the 21st of January. One hundred and twelve spiderlings emerged from a large rough hole in the dorsal surface of the eggsac. It was not possible to observe if the mother perforated the eggsac for the young, as occurs in *Delena cancerides* Walckenaer (Windsor L. 1972. Victorian Nat. 89:355-366, Coleman E. 1941. Victorian Nat. 58:88-90). Examination of the eggsac revealed eight light yellow eggs which had become crumpled through dehydration amongst the exuviae of the newly hatched young.

Sperm retention has been recorded by a female *Paraplectanoides crassipes* Keyserling for over five years (Hickman V. V. 1975. Bull. British Arachnol. Soc. 3:166-173) with a 91% fertility rate. All other recorded cases of sperm retention have been for eighty days or less, with fertility rates of less than 20% (Valerio C. E. 1970. Bull. British Arachnol. Soc. 1:28). It is unusual for spiders with short life spans to moult after mating, but huntsmen spiders may live several years (Hickman V. V. 1967. Tasmanian Museum and Art Gallery, Hobart). However, sperm retention requires a fully developed reproductive system, in particular epigynal openings, not present in this specimen prior to its penultimate moult. Females of this species have been observed only to become sexually receptive after their final moult (Clyne D. 1971. Victorian Nat. 88:244-248, McKeown K. 1952. pp. 85-86 Angus and Robertson). It is therefore unlikely that the young resulted from a mating by the mother, prior to capture.

The only other possible explanation is parthenogenesis. Parthenogenesis has been known to occur in spiders for many years (Savory T. H. 1928. Sidgwick and Jackson, London pp. 246-247) but is rare and usually results in a low fertility rate. In this instance the fertility rate was 93%.

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