



MEDIA RELEASE

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Exciting Find of Rare Assassin Spiders on WA South Coast

An exciting and important discovery of rare assassin spiders has been found on the south coast near Albany.

Thriving populations of the Main's Assassin Spider and one new species of assassin spider have been found during a survey carried out by the Western Australian Museum and funded by Verve Energy and the Water Corporation.

With their fearsome appearance, poisonous bite and deadly hunting skill, these spiders stalk and capture spider prey – so earning their name.

However, not to fear, assassin spiders are a mere 5mm long when fully grown (about half the size of the head of a drawing pin) and are harmless to humans.

The recent survey was carried out at 52 sites including the Albany Wind Farm.

Dr Mark Harvey from the WA Museum said the survey results were exciting and very significant.

“There had been only one reported sighting, in 1983, of Main's Assassin Spider in Australia – and that was near Albany. Now this survey has revealed that the spider is more widespread,” Dr Harvey said.

“We found very good breeding populations with males, females and juveniles. They are sustainable populations and everything suggests that the populations are in good condition.”

The Main's Assassin Spider, or *Austrarchaea mainae*, is listed as “threatened” under the Western Australian Wildlife Conservation Act 1950.

During the survey, 40 specimens of Main's Assassin Spider were recorded at 25 different sites stretching 70 kilometres along the south coast between William Bay National Park and Gull Rock National Park.

The new species of spider was a bonus. Yet to be named, the new spider was discovered near Bremer Bay.

Assassin spiders stalk and kill other spiders, stabbing their prey with their oversized jaws, which are barbed at the ends with venomous fangs. To be able to lift their jaws, the assassins have evolved elongated necks, allowing them to strike from a distance.

Assassin spiders (family *Archaeidae*) are found in shaded peppermint (*Agonis spp.*) groves. Spiders are an important member of the ecology of the south coast.

As well as the Albany coast, these spiders, described as ancient and dating back 150 million years, are found only in eastern Australia, Madagascar and the east coast of South Africa. Main's Assassin Spider is only found on WA's south coast.

Mr Michael Rix, University of Western Australia PhD student, who found the new species during the survey, said that these spiders are ancient survivors from the days of the dinosaurs.

"They watched the dinosaurs come and they watched the dinosaurs go," Mr Rix said.

Verve Energy commissioned the survey as part of a feasibility study into extending the Albany wind farm (known as the Grasmere wind farm project).

Verve Energy's Manager Sustainable Energy Projects Daniel Thompson said the company was pleased that the survey yielded such an interesting and positive result.

"When developing any project, Verve Energy takes every possible measure to minimise any impact on the environment," Mr Thompson said.

"We are pleased that this spider's habitat has been identified and if we proceed with the Grasmere project, we will ensure the spider's habitat is protected.

"We will work with the Department of Environment and Conservation and the Environmental Protection Authority to make sure strong environmental measures for the design, construction and operation of the project are in place."

The Water Corporation, who helped fund the survey, were also keen to protect the spiders' habitat.

Great Southern Regional Business Manager David Hughes-Owen said the Corporation had been involved in a survey to identify new borefields.

"While identifying the new borefield locations we were surprised to find specimens of the assassin spiders," Mr Hughes-Owen said. "We are pleased that since this find environmental procedures have been put in place to preserve their habitat."

The 52 sites surveyed were within eight localities – William Bay National Park, Mt Hallowell, West Cape Howe National Park, western Torndirrup Peninsula, Albany wind farm, Torndirrup National Park, Two Peoples Bay Nature Reserve and Gull Rock National Park.

BACKGROUND INFORMATION:

In November 2007, a fauna survey was commissioned by Verve Energy as part of the feasibility study to extend the Albany wind farm (this proposed project is known as the Grasmere wind farm). Main's Assassin Spider was rediscovered at the Albany Wind Farm during this survey.

After the rediscovery of Main's Assassin Spider in 2007, the Department of Terrestrial Zoology at the Western Australian Museum was funded by Verve Energy and the Water Corporation (and sub-contracted by Biota Environmental Sciences) to survey the south-coast of Western Australia for new populations of Main's Assassin Spider. This survey work was conducted over 14 days between March and May 2008, The work was undertaken by Dr Mark Harvey (Senior Curator, Western Australian Museum) and Mr Michael Rix (PhD student, University of Western Australia).

Survey results:

Of the 25 sites where specimens were found, four sites were within three separate National Parks (William Bay National Park, Torndirrup National Park, Gull Rock National Park).

- Within Torndirrup National Park, specimens were not found at the original (type) locality on Eclipse Island Road (due to a recent fire), but were collected from two new sites at the eastern end of the Torndirrup Peninsula (Isthmus Hill, Salmon Hole Road).
- Specimens were found at three sites within the Albany Wind Farm, near Turbines 2, 3 and 5, but were not located between Turbines 12 and 6.
- A large number of specimens (22) were found from 16 sites on reserve land west, east and north of the Albany Wind Farm.
- Several specimens were also collected from reserve land near Denmark and roadside land north-west of West Cape Howe National Park.

In addition to the populations mentioned, a new population of assassin spiders was found at Walpole-Nornalup National Park, and a new species of assassin spider was discovered during surveys conducted south of Bremer Bay.



ABOVE: Main's Assassin Spider

About Assassin Spiders

The 'assassin spiders' (family Archaeidae) are a group of ancient and extremely unusual spiders known only in Madagascar, South Africa and mainland Australia. Assassin spiders are specialist predators of other spiders.

The family was first discovered and described in Europe from Baltic amber fossil specimens, before living representatives were subsequently found in the forests of Madagascar in the mid-19th century.

Fossil assassin spiders have been discovered in fossil strata of Jurassic age, some 150 million years old. Indeed, assassin spiders very similar to the modern species were probably present throughout the Mesozoic Era, having survived both the evolution and extinction of the dinosaurs.

Habitat

Main's Assassin Spider favours peppermint (*Agonis spp*) coastal habitats where it inhabits shaded, long unburnt groves with an understorey of sedges (*Lepidosperma sp*), grasses and 'wiry' herbs (*Restionaceae*).

Its microhabitat is the elevated leaf-litter layer which collects amongst the crowns of the understorey plants.

Within its known range, Main's Assassin Spider has very specific habitat requirements, and recognition of these habitats will be essential to minimising the disturbance caused by any future developments.