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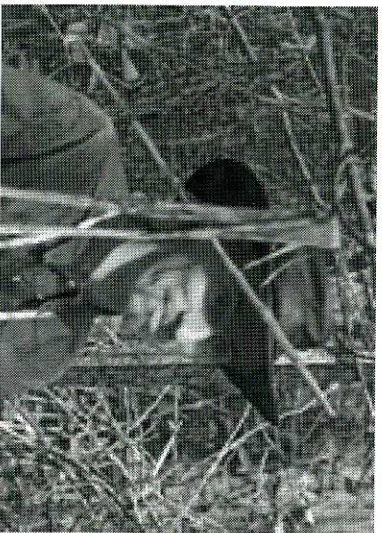
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Two new records for the Maiden Hair *Adiantum capillus-veneris* L. in New South Wales

by Pierre-Olivier Cocharad

Introduction

Adiantum capillus-veneris is a medium-sized fern often used as a pot plant (for a complete description of the species, see Flora of Australia vol. 48). But did you know that this species can be seen in the wild in New South Wales, where it is native?



Worldwide distributed,

A. capillus-veneris has been found in all Australia's States "except Tasmania and the ACT, but is "nowhere common" (Bostock, 1998). The species seems very scattered, because of its ecological preferences, and is perhaps also overlooked. It favours limestone habitats, where sheltered and very wet calcareous cliffs and rocks occur.

According to the map of the species in Flora of Australia volume 48, which was published in 1998, it seems no more than one record of *A. capillus-veneris* was known in NSW. The only dot on the map is probably the herbarium specimen presented in the text (Bostock, 1998): "Northbridge, suburban Sydney, N.A. Wakefield 439 (MEL)".

But, at least before the publication of Flora of Australia, it was not very easy for botanists to be aware about the possible occurrence of this species. For example, when the first volume of Flora of New South Wales was published (Harden, 1990), the species was not recorded in NSW. This means *A. capillus-veneris* was not included in the key of the genus nor the supplements (2000).

Given this lack of information about this species in the publications and also because limestone habitats are far from common, *A. capillus-veneris* has been probably neglected or overlooked.

Survey

During bushwalks in spring 2004, I had occasion to look closely on two limestone cliffs. On both of them, *A. capillus-veneris* has been found.

1) Bungonia State Recreation Area (4/10/2004)

This country has a famous reputation for its numerous natural caves resulting from intense weathering at thick and solid limestone. The weathering created also a deep canyon (250 m straight), called Bungonia Canyon or Slot Canyon (34° 49'; 150° 01'; alt. 200 m), where the Bungonia Creek floods. Everywhere along the canyon, thousands of specimens of *A. capillus-veneris* were seen on calcareous tuff. A few specimens were also found downstream, scattered on the calcareous boulders in the bed of Bungonia Creek.

2) Blue Mountains National Park (27/11/2004)

Surprisingly, despite the reputation of a dissected "limestone-free" country, we sometimes can find between the thick layers of sandstone a thin intermediate calcareous formation.

Near Blackheath, a walking track (Rodriguez Pass Walking Track) goes down through a deep canyon called "Grand Canyon" (33° 39'; 150° 19'; alt c. 750 m). Just after the Grand Canyon, for a small distance, this track lies along the base of a huge cliff (up to 150 m high), not far from Beauchamp Falls. This base is a very wet calcareous tuff and on this only patch, *A. capillus-veneris* is very abundant (probably c. 1000 plants).

Discussion

A. capillus-veneris has been probably present in both sites for a long while. These populations are not garden escapes.

These two places are well known for sporting adventures (canyoning, caving, rock-climbing). But, despite this, they are not remote from car parks, both are relatively inaccessible. The steep tracks, sometimes slippery, have probably stopped many botanists.

This probably explains why this species was not known there. Or perhaps simply, because ferns are not very showy plants (very few people are interested in ferns). *A. capillus-veneris* has been ignored.

It is interesting to notice that no other ferns were found closely associated with it. However, in the Grand Canyon of the Blue Mountains, plenty of other species were found (rainforest aspect), but not in the same microhabitat.

Other limestone habitats occur in New South Wales (including the ACT). For example, is it possible to find *A. capillus-veneris* on the limestone country in and near the ACT? That is not certain, because of the climate. Winters are perhaps too cold (it is a frost intolerant species), while the rocks are perhaps too dry and not sheltered (remember that both locations where *A. capillus-veneris* was found are named 'canyon'). And we can guess that *A. capillus-veneris* does not accept all sorts of calcareous rocks. For example, at London Bridge Arch, a natural limestone bridge at the southern end of the Googong reservoir, this fern was not found.

However, I think a more intense survey of ferns in limestone places, especially where cliffs and gorges are the main features, may bring more data about this poorly known species.

Note: For these two locations, specimens have been collected and lodged in the Australia's National Herbarium (CANB).

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OPPOSITE:

Adiantum capillus-veneris (Photographs by Pierre-Olivier Cocharde)

