

Giuseppe Raddi (1770 – 1829)

Giuseppe Raddi was born on 7 July 1770 in Florence, Italy, the son of Stefano Raddi and Orsola Pandolfini. The family was not well off, and as a young boy Giuseppe worked as messenger for a pharmacist. His empathy with plants was recognised by the plant collector and author Ottaviano Targione Tozzatti, whose patronage enabled him to further his knowledge of botany by attending classes with his childhood friend Gaetano Savi. In 1785, when Gaetano went to university at Pisa, Giuseppe, then 15 years old, was apprenticed to Attilio Zuccagni, director of the botanic garden of Florence. He remained there until 1795 when he was appointed custodian of the natural history museum in Florence. In 1806 Raddi published the first of his papers on cryptogams (ferns, mosses, algae and fungi) growing in the Florence countryside.

The museum closed from 1807 to 1814 when France annexed Tuscany during the Napoleonic regime; Raddi could then devote more time to travel and research, and in 1817 he read his work on leafy liverworts to the Società Italiana di Scienze. In the summer of 1817, under the patronage of Grand Duke Ferdinand III, he went to Brazil with an Austrian scientific commission, on a voyage associated with a royal marriage. Charged with responsibility for the cryptogams, he made an important collection of ferns, as well as grasses and other flora and fauna, mainly from the outskirts of Rio de Janeiro. Back in Italy on 1 June 1818, he studied his Brazilian material in collaboration with other botanists, and in 1819 Antonio Bertoloni named *Raddia*, a grass genus in the Poaceae family, after the Tuscan naturalist.

Giuseppe Raddi's works include *Crittogame Brasiliane* (2 vol. Florence 1822) and *Plantarum Brasiliensium nova genera et species novae vel minus cognitae*, in which he described 156 new species of ferns (1825). The widespread genus *Rumohra*, represented in New Zealand by the leathery shield fern *Rumohra adiantiformis*, was one of Raddi's botanical names honouring influential Tuscan politicians or patrons. Another of his Brazilian discoveries, a maidenhair fern, was originally named *Adiantum cuneatum* by German-Russian botanists Langsdorff and Fischer in 1819. However, that name had already been used by George Forster in 1786 for another fern (later *Lindsaea cuneata*, now *Lindsaea trichomanoides*). In a later taxonomic revision (1836) by the Bohemian botanist and professor at the University of Prague, Carl (Karel) Presl, the Delta maidenhair fern was renamed *Adiantum raddianum*, after Giuseppe Raddi, who found it in Brazil. The species has naturalised in many areas of the world.

In 1828 Raddi joined the Franco-Tuscan expedition to Egypt on a mission of more than a year up the Nile as far as Wadi Halfa. The scientists made important drawings, produced copious notes, and gathered "rare monuments". As naturalist, Raddi made extensive collections of flora, fauna, minerals and rocks for the museums of Pisa and Florence. Becoming seriously ill with dysentery on the return journey, he was hastily put on a ship sailing for home, but died at Rhodes during the voyage, on 6 September 1829. The consuls of Sardinia and Austria on the island ensured that his collections reached Tuscany.

Adiantum raddianum

Adiantum in the Pteridaceae family are tufted or creeping terrestrial maidenhair ferns, with polished dark-brown stipes, fan-shaped or oblong ultimate segments, and reflexed kidney-shaped sori, usually on the pinnae margins. The Greek *adiantos* 'dry', or 'untouched by water' refers to the ability of the fronds to shed water. Native to tropical Central and South America, *Adiantum raddianum*, the Delta maidenhair fern, has black stems bearing narrowly triangular semi-erect fronds that droop gracefully as they mature. It has naturalised in New Zealand (1981), occurring in Auckland, Taranaki and Wellington, probably as an escape from cultivation.

