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JULIAN TENISON WOODS
CATHOLIC PRIEST AND SCIENTIST IN QUEENSLAND 1877 – 1883

2 December 2008 *Dr Margaret McKenna rsj*

Julian Tenison Woods, (1832 - 1889), was ordained to the Catholic priesthood in Adelaide in January 1857, three years after his arrival in Australia from England. He was prayerful, zealous and acclaimed as a preacher and as such, much in demand in the eastern states of Australia during the 1870s and 1880s.[1] Apart from his role as founder of two institutes of Catholic women religious - the Sisters of St Joseph and the Sisters of Perpetual Adoration, he is notable in his own right because of his keen interest in science. On this subject he published three books, a number of pamphlets[2] as well as articles on scientific topics in many of the newspapers of the day.[3] Some of his publications relate specifically to Queensland.[4]

In 1889 he became President of the Linnean Society of New South Wales then Vice-President until his death in 1889. He was elected unanimously to the Board of Trustees of the Australian Museum in 1880 and in 1888 was awarded the W. B. Clarke Medal by the Royal Society of New South Wales for his paper on the Australian mollusca.[5] In Queensland his memory is kept alive, not only through the institutes of women religious he founded, but also by the botanical species he named, the mineral deposits he found, and the book, *Brisbane Flora and Fungi,* he co-authored with F M Bailey, a resident botanist of wide experience. In 1975 a 780 metre crest in the D'Aguilar Range north-west of Brisbane received his name.

As priest and scientist Julian Tenison Woods trod a complex path given the characteristics of the time in which believers in Revelation were, as John Henry Newman stated 'startled at the discoveries or speculations of geologists, natural historians and linguists'.[6] In the 1860s the publication of Charles Lyell's *Antiquity of Man* and Charles Darwin's *Origin of the Species* engendered controversy about the nature of man and the place of God in creation and Julian believed they needed to be challenged and argued on scientific grounds. He held that in using the popularity which science enjoyed, he served the church.[7]

He shared a friendship with William Henry Archer (1825-1909) a leading Catholic layman who had migrated from England to Victoria. Like Julian, Archer had an interest in science and also in Catholic education.[8] 'I think you know', he told Archer, 'that I don't value science for its own sake though you know that I love it as much as I love anything in the world outside my ecclesiastical duties, but I could not consent to devote valuable time to it except as a means to an end and the public are quite welcome to all I can give'.[9] In 1867-68 he wrote a series of articles on *Science and Revelation* which he published in the Adelaide Catholic paper.

Woods found that his interest in science and his publications supplemented and supported his work as a missionary. In 1873 he lectured in Gympie on 'The Gympie goldfields and the copper mines of Queensland'. The *Port Denison Times* published the lecture and claimed that Woods had a 'European reputation as a geologist'.[10] Such a claim enhanced his fame as a zealous Catholic missioner and played its part in attracting people to his missions.[11] Mary MacKillop remembered how people were proud to say: 'Father Woods gave that [shell] to my little son or daughter'. They told her that some of the shells Father Woods found on the Queensland coast were used for holy water fonts in the Catholic churches.[12]

All things scientific interested Julian Tenison Woods – geology, botany, zoology, marine biology and palaeontology, and in some aspects he was a man before his time. The first well in the Great Artesian Basin was not sunk until 1878, but Fr Woods had long been interested in the question of artesian water. In a paper titled 'The Physical Structure of our Continent', published in February 1867, he had predicted its presence in the Lower Darling and other areas. He was one of the first to advocate the conservation of Tasmanian forests. In 1871, with a sense of urgency he wrote:

> The only way to prevent the wholesale destruction of the timber will be by proclaiming reserves or State forests as they have done in Victoria …The matter is one which the Legislature should deal with promptly, or the forests of Tasmania, peerless and priceless as they once were, will soon be a thing of the past.[13]

He was an astute observer as well as a thinker and wrote papers that were accepted by recognised scientists and was keen to ensure that the credit he deserved came to him.[14]

He made contact with the eminent scientists, asked questions, checked his theories and made friends with men of the calibre of Professors Edgeworth David, Liversidge and Tate, Dr Cox, J. Stephens, William Macleay and others. 'His pioneering geological work in North Australia laid the foundation on which later observers built. Certainly geological science owes him a deep debt of gratitude. Perhaps his most useful contribution was paleontological …His descriptions and figures of fossil plants, especially from the Mesozoic strata of Queensland are of lasting value', wrote Edgeworth David.[15] P. Martin in a paper published in 1989 claimed that Fr Woods was the first of the botanists based in Australia 'to publish serious comparative observations of vegetation (as distinct from flora) of the various regions with which he was familiar'.[16]

The manner in which he studied types of vegetation in the 1870s and 1880s resembled the approach plant ecologists developed in the early twentieth century.[17] Julian Tenison Woods visited Queensland between the years 1872 and 1886 and criss-crossed the colony from Cooktown in the north to Stanthorpe in the south. He contributed to the pastoral care of the Catholic communities in the towns and settlements, the expansion of Catholic education, the foundation of the Sisters of Perpetual Adoration, the development of the Sisters of St Joseph as well as bringing his enthusiasm and expertise to studies in botany, marine biology and geology.

In a paper published in 1880 he wrote: 'I travelled by steamer by sailing boat, by rowing boat and by coach, horseback and on foot – up rivers, and over vast ranges, about coral reefs and amid unexplored country'. 'I devote an hour a day to science and manage occasionally to spend a day or two in museums … or a ramble on the coast or in the bush', he told Archer. In this way the priest/scientist built up notes that became a basis for his lectures and articles.

Woods enthusiasm for botany is attested by the fact that the Queensland Herbarium contains almost 200 of his plants collected in the Northern Territory, and in Asia as well as in Queensland. In 1878 he informed Archer: 'Brisbane has for the last few years had the advantage of a resident botanist of wide experience Mr. F. M. Bailey who has collected in almost every part of Queensland, and examined every district of the colony with the greatest deliberation and care. I had the advantage of benefiting by his experience in many a botanical ramble'.[20] The two became friends and between 1879 and 1889 the Government registrar of incoming letters to Frederick Bailey recorded some 50 letters from the priest concerned with the sending of the plant specimens and requesting information. The first arrived on the 16 August 1879 and came from Cooktown and the last was written

from 533 Elizabeth Street Sydney and arrived on 15 June 1889 just a few months before Fr Woods' death in October. Unfortunately none of these letters have been kept.

On 25 March 1879 Julian Tenison Woods gave a lecture in Brisbane on *The Relations of the Brisbane Flora.* He commenced by stating:

> Now that the great work of cataloguing our Australian Flora has been concluded, and that the *Flora Australiensis* of Bentham and Mueller is a standard of reference to which recourse can easily be had, the preparation of the local floras will be the first care of Australian botanists. Until this is done, the real character of Australian vegetation will hardly be manifest. At present our knowledge does not go much further than an enumeration of species. Their geographical distribution has hardly been touched upon.
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> A stranger from Europe would see nothing especially attracting his attention in the flora of Brisbane, except perhaps its luxuriance and verdure. He would see the fields and open spaces covered with grass, and the trees, except for their darker and richer foliage, not unlike what he was accustomed to elsewhere. He would see the same weeds growing in much the same places, and in the same abundance that he saw around his own house, and unless he were a very close observer, he would hardly detect the peculiarities of some of the tropical stragglers. And this resemblance points to a remarkable fact that must be taken into account in estimating the Australian flora. We have both in genera and species a certain amount of world-wide forms, and these are for the most part species which are richest in individuals as well. … Take them all in all, therefore, our resemblances are greater than our differences, and this must limit our notions of the exclusive peculiarities of the Australian flora.

We must next enquire, what are the peculiarities of this flora? I cannot do better than enumerate those stated by Dr Hooker in his admirable essay… He says the chief peculiarities of the Australian flora are that it contains more genera and species peculiar to its own area, and fewer plants belonging to other parts of the world than any other country of equal extent. About two-fifths of its genera, and upwards of seven-eights of its species are entirely confined to Australia… In the Brisbane flora we find about four and one half percent of the species which are peculiar to Queensland. They have not been found even in the confines of New South Wales, which it must be remembered is not two hundred miles from Brisbane. This is rather a large percentage of endemic plants for such a locality.

The flora of Brisbane contains many very elegant additions to the flower garden. No one who has made the journey from Moreton Bay to Ipswich, but must have been struck by the richness and luxuriance of the foliage, and the variety and beauty of the flowers which line the banks of the River Brisbane. *Castanospermum Austrlade*, with its lovely foliage, conspicuous flowers, and still more conspicuous pods; *Eloa carpus grandis* (the Queensland quandong) with its massive rounded heads of glossy bright green, would adorn any scenery, but especially such dark and beautiful masses of vines, twiners, ferns, and mossy green stems, as fill the Queensland river-scrubs. The whole atmosphere is perfumed with the leaves of *Mullotuselae oxyloides*, while another and rather showy-leaved plant of the same genus is said to possess valuable medicinal qualities for the cure of tape-worm. Belonging to the same order we have that remarkable exception to the sexual rule of plants, *Alchornea iliacifolia,* which reproduces itself from seed through several generations from the female plants alone, without the intervention of any male flower. Strangely enough, too, the seeds have often two embryos at the base. There is another species of this plant, the male flowers of which are unknown…

Woods concluded the lecture by suggesting that the medicinal properties and economic character of the Queensland flora could be studied. He states: 'So far we have [only] ascertained the names and external characters of the plants'.

A joint paper written by Frederick Bailey and Julian Tenison Woods and published in 1879 was the first census undertaken of the native and naturalized plants in Queensland.[21] Woods had suggested to Bailey that a census be made at stations at distinct points along the various coastal locations and in the interior where 'marked differences' in plants could be expected. By this means he believed that the real character of Australian vegetation could be gradually unfolded. This plan was adopted in Queensland and their joint publication represents one of the benchmark studies of introduced plants in Queensland. Woods proceeded to study and name plants he noticed on his travels. In a series of articles 'Notes made in North Australia' he published one of the first written accounts of the vegetation of Queensland that described the habitats of its most important species.[22] A list of the plants growing in the Emu Park area is indicative of Woods' precision.[23]

In 1880 Fr Woods wrote that his times in the coral region were 'the most intensely interesting' of any he remembered 'in a life-time of observations as a naturalist'.[24] He shared his enthusiasm and interest with the ordinary reader in an article he published in the *Australasian,* 18 October 1879.

> There is no such thing as beaching a boat on live coral, so we all jumped out into the water about 20 yards from the shore, where a gentle surf was rolling and breaking. Now we were in a world of wonders. I found myself close to a huge, yellow, branching mass of a species unknown to me. I plunged my hand into it and was surprised to find that it yields easily. It was what they call soft coral, or branching polyps without a stony nucleus… We made our way through the water towards

> the dry part of the reef, all my companions as well as myself uttering cries of delight and astonishment as we advanced, now and then plunging neck deep in water as the dead coral on which we stood gave way beneath us. And here I may remark that it is no use going to a coral reef without being prepared to dive and swim in your clothes. A good pair of hobnail boots make the best covering for the feet. We all came well prepared and so could afford to laugh as we stumbled along … But the sharks? Well we didn't see any.

In June 1883 the Queensland Minister for Lands asked him to examine and report on 'the geological indicators of the existence of coal seams on the line of the Central Railway'.[25] Two years earlier in 1881, the government had given him a [railway] trolley 'to go anywhere and visit the cuttings on the railway' so he had visited many of the coal bearing districts and had made a collection of fossils.[26] Using this information he compiled *Coal Resources of Queensland.* Although he repeated errors of A. C. Gregory and was hampered in his investigations by a lack of accuracy in plant identification, nevertheless, his final prediction 'has come so breathtakingly true that one cannot but admire the vision, confidence and perception of the man'.[27] Earlier in 1881 Woods made a preliminary survey of the tin mining district of Herberton on the Wild River. The Queensland government published his report[28] and Woods wrote twelve articles 'A Visit to the Wilde [sic] River'. These were published in the *Sydney Mail.*[29] In a letter to his brother Terry from Townsville, he shared his experience:

> I have had a great deal of roughing it since I wrote last. I have had to camp out night after night, without a tent at times and I can tell you I found it very uncomfortable. I shall claim to be quite an authority on misery when I get back…My journey to the tin mines was very trying…The Musgrave River runs around a mountain chain 5000 feet high … I had fine botanizing, but being often hungry and tired, at the time

> hardly enjoyed it. The tin mines are as fine as they have been represented… I was able to get a good swim in the beautiful clear stream every day, and but for that the dirt and misery of the huts and humpies in which I had to feed would have been quite insupportable.[30]

His experiences were not without some alleviation. In his notebook he wrote:

> Fireflies… form a beautiful adornment to the scrub during the whole of spring. They are seen flashing to and fro with a very bright phosphorescent light, which is very singular and startling until one gets used to it. I have seen them abundantly in all Queensland as far south as the Gympie diggings, but never so beautiful or abundant as in the scrubs at the back of Port Douglas. Sometimes when we passed close to a bush we would arouse a whole swarm of them, and then for a moment it would seem as if all the stars of heaven had taken suddenly to sail slowly about in curves and zigzag lines … The insect which produces it is a small and insignificant brown beetle… the light seemed to be confined to two or three segments of the tail … One night-bird, of a kind unknown to me, profits very much by the light. Several times I saw it swooping backwards and forwards among the fireflies and causing dreadful havoc among them – another illustration of shining too brightly in this world.[31]

On 14 August 1883 Julian Tenison Woods sailed from Brisbane on the *Chyebassa* with William Allen – the late member for the Darling Downs and Henry Blundell, the ex-member for Clermont and also a cousin of Frederick Weld, the Governor of Singapore and the Straits Settlements. Weld, a friend of Woods had invited him to undertake a scientific tour under government auspices of that part of Asia. In 1884 he wrote of time spent with Fr Bernard Scortechini a Queensland priest of Italian origin and like Woods an enthusiastic and competent botanist and 'a very agreeable and welcome companion'.

It was not until June 1886 that Woods was back on Australian soil. After a few months in the Northern Territory he arrived in Brisbane in October, but by May 1887 he was ill and returned to Sydney. Gradually his health deteriorated and he died on 7 October 1889.

The scientific community recognised Woods' passing: His friend William Archer began a subscription list for a suitable monument to be erected over Julian Tenison Woods' grave in Waverley cemetery. The cost was quickly subscribed, donations coming from many of his scientific friends. In an address to the Royal Society of South Australia, Professor Tate assured his audience:

> No heavier loss has this year befallen the Scientific Societies of Australasia that the death of this naturalist [Julian Tenison Woods]...As a small tribute of respect to one who has done so much for the good of religion and laboured so vigorously for the science he loved, and also for the community in general in whose interest he sacrificed his valuable life, a memorial tombstone has been erected over his grave by private subscription.

In Professor Tate's view and that of many scientists: 'Not only was [Fr Woods] one of the foremost Australasian naturalists, but to very many of us he was far more as a dear personal friend, a delightful companion and a skilled advisor'.[32]

The ardent wish of Julian Tenison Woods, the Catholic Priest and Scientist, was for a harmonious relationship between science and religion and while he loved the study of science, it was a love tempered by his religious beliefs.

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She was awarded a PhD by The University of Queensland and has published many articles on history and written a book 'With Grateful Hearts! Mary MacKillop and the History of the Sisters of St Joseph in Queensland 1870-1970'.

ENDNOTES:

1. Anne. V. Player, 'Julian Tenison Woods 1832-1889: The Interaction of Science and Religion', MA thesis, Australian National University, 1985, pp. 160, 179.

2. **Pamphlets:** *Coal Resources in Queensland. Report on the Geology and Mineralogy of the Northern Territory*.

   Books: *Geological Observations in South Australia, principally in the district south-east of Adelaide,* London: Longman, 1862. *A History of the Discovery and Exploration of Australia*, London, 1865. *Fish and Fisheries of New South Wales*, Sydney: Government Printer, 1883.

3. *Australasian, South Australian Advertiser, Sydney Mail, Sydney Morning Herald, Melbourne Review, Journal of the Straits Branch of the Royal Asiatic Society, Brisbane Courier, South Australian Chronicle.*

4. 'A Trip to the Barrier Reef', *The Australasian*, 18 October, 1879. 'Northern Queensland', *South Australian Advertiser,* 12 letters, 10 December 1879–12 April 1880. 'Notes made in Northern Australia', *Sydney Mail*, 12 letters, 17 July–25 December 1880. 'Explorations in North Australia', *Sydney Morning Herald*, 8 letters, 2 April-14 May, 1887.

5. Margaret M. Press, *Julian Tenison Woods*, Sydney: Catholic Theological Society, 1979, pp. 213, 214.

6. J. Derek Holmes (ed), *The Theological Papers of John Henry Newman on Biblical Inspiration and on Infallibility*, Part I, Papers on Inspiration, Newman's Revised Introduction, 24 May 1861, Oxford, 1979, p. 28.

7. Player, 'The Interaction of Science and Religion', p. 5.

8. Archer published *Catholic Education and Civilisation Past and Present* [four editions]. *The Position of Catholics to Public Education 1884*. Cited by T. F. Ferguson in *Bibliography of Australia 1851-1900*. Sydney: Angus and Robertson, 1963, pp. 103-105.

9. Woods to Archer, 20 June 1878.

10. *Port Denison Times*, 6 December 1873.

11. Player, 'The Interaction of Science and Religion', p. 228

12. Mother Mary of the Cross MacKillop ed., Margaret Press, *Julian Tenison Woods: A Life.* Blackburn, Vic: Harper Collins, 1997, p. 186.

13. Woods, 'Tasmanian Forests', 1878, p. 2.

14. Player, 'The Interaction of Science and Religion', p. 229.

15. George O'Neill, *Life of the Reverend Julian Tenison Woods (1832-1889)* p. 362.

16. P. Martin, 'The Botanical Work of the Reverend J.E. Tenison Woods', p. 127.

17. Player, 'Julian Tenison Woods 1832-1889: The Interaction of Science and Religion', p. 62.

18. JET Woods 'Notes Made in Northern Australia'. *Sydney Mail,* 17 July-25 December 1880.

19. Woods to Archer, 20 June 1878.

20. *Ibid.*, 20 June 1878.

21. F. M. Bailey and J. E. T Woods, 'A Census of the Flora of Brisbane', *Proceedings of the Linnean Society of, NSW*, vol IV, 1879.

22. Player, 'The Interaction of Science and Religion', p.62.

23. The plants growing in the Emu Park area mentioned by Fr Woods are listed in Note A following endnotes.

24. J.E.T. Woods, 'On some of the Littoral Marine Fauna of North-East Australia', *Proceedings of the Linnean Society of, NSW*, vol V, 1880, pp. 106-31. 1883.

25. *Freemans Journal*; 28 July 1883. *Queenslander,* 1 September

26. Woods to Terry Woods, 3 August 1881

27. Player, 'The Interaction of Science and Religion', p. 97

28. J. E. T. Woods, *Report on the Wild River and Great Western Tin Mines (near Herberton)*, Brisbane, 1881.

29. J. E. T. Woods, 'A Visit to the Wilde [sic] River', *Sydney Mail,* 25 February,18 March, 1, 15, 29 April, 20 May, 10, 24, June, 15, 29, July, 19August, 9 September 1882.

30. Julian Woods to Terry Woods, 28 September 1881. O'Neill, *Life of the Reverend Julian Tenison Woods (1832-1889)* p. 341.

31. Notes Made in Northern Australia, *Sydney Mail*, 17 July–25 December 1880.

32. *Transactions and Proceedings and Report of the Royal Society of South Australia*, xii, 1889-1890, pp. 253-254

Note A

- *Pittosporum*
- *Alphitonia excelsa (Red Ash, Soap Tree)*
- *Dodonaea (Hop Bush)*
- *Swansona galegifolia (Pink Pea-Flower)*
- *Acacia aulacocarpa (Hickory Wattle)*
- *Eucalyptus tesselaris ((Moreton Bay Ash)*
- *Wahlenbergia gracilis (Native Bluebell)*
- *Jasminum simplicifolium (Climbing Jasmine)*
- *Ipomoea (Vigorous Trailing Vine)*
- *Vitex (Scrub)*
- *Mallotus discolour (Quinine Tree)*
- *Casuarina*
- *Exocarpus latifolia (Native Cherry)*
- *Dianella caerulea (Blue Flax Lily)*
- *Xanthorrhoea (GrassTree)*

- *Pandanus*
- *Adiantum (Rough Maiden Hair Fern)*
- *Stackhousia*
- *Cupania anacardioides (Cupaniopsis)*
- *Jacksonia scoparia (Native Aust. Indigo)*
- *Kennedia rubicunda (Dusky Coral Pea)*
- *Melaleuca*
- *Helichrysum ramosissimum (Yellow Buttons)*
- *Rhodanthe floribunda (Yellow and White Paper Daisies)*
- *Alyxia ruscifolia (Chain Fruit. Native Holly)*
- *Clerodendrum (Wild Jasmine , Sorcerers Bush)*
- *Petalostigma*
- *Ficus*
- *Macaranga tanarius*
- *Dendrobium (Golden orchid)*
- *Eustrephus latifolius (Wombat Berry)*
- *Livistona*
- *Gahnia aspera* (Saw Sedge) *Eucalyptus platyphylla* grows between the Haven Road and Emu Park. Father Wood writes: 'This gum tree begins to appear about Rockhampton and soon is the prevailing tree, on poor dry sandy land in the tropics. Its distinguishing character is the great width of the leaves and the conspicuous cream-coloured smooth bark'. (Botanical Notes Qld 1V 30 August 1882).

  Taken from notes supplied by Margaret Rowley rsj.