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**Misidentification of tansy, *tanacetum macrophyllum*, as yarrow, *achillea grandifolia*: a health risk or benefit?**

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## Misidentification of tansy, tanacetum macrophyllum, as yarrow, achillea grandifolia: a health risk or benefit?

### Abstract

Tansy, *Tanacetum macrophyllum* (Waldst. & Kit.) Sch. Bip., is often misidentified by herb collectors as yarrow, *Achillea grandifolia* Friv. With the former, cases of poisoning induced by its ingestion are well documented, but the latter is widely used for ethnopharmacological purposes. The aim of this study was to estimate, based on the volatile metabolite profiles of the two species, the potential health risk connected with their misidentification. GC and GC-MS analysis of the essential oils hydrodistilled using a Clevenger-type apparatus from *A. grandifolia*, *T. macrophyllum*, and two plant samples (reputedly of *A. grandifolia*, but in fact mixtures of *A. grandifolia* and *T. macrophyllum*) obtained from a local market, resulted in the identification of 215 different compounds. The main constituents of *A. grandifolia* oil were ascaridole (15.5%), alpha-thujone (7.5%), camphor (15.6%), borneol (5.2%) and (Z)-jasmone (6.4%), and of *T. macrophyllum* oil, 1,8-cineole (8.6%), camphor (6.4%), borneol (9.1%), isobornyl acetate (9.5%), copaborneol (4.2%) and gamma-eudesmol (6.2%). The compositions of the oils extracted from the samples obtained from the market were intermediate to those of *A. grandifolia* and *T. macrophyllum*. Significant differences in the corresponding volatile profiles and the literature data concerning the known activities of the pure constituents of the oils, suggested that the pharmacological action of the investigated species (or their unintentional mixtures) would be notably different. It seems, however, that misidentification of *T. macrophyllum* as *A. grandifolia* does not represent a health risk and that the absence of the toxic alpha-thujone from *T. macrophyllum* oil may in fact be regarded as a benefit.

### Keywords

yarrow, achillea, misidentification, grandifolia, tansy, health, risk, benefit, tanacetum, macrophyllum, CMMB

### Disciplines

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# BIBLIONEWS

## AND

### AUSTRALIAN NOTES & QUERIES

#### CONTENTS

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271st Issue      Vol. 11, No. 3      September 1986

DAVID SCOTT MITCHELL AND STONY SILENCE	Lionel Gilbert	67
P. NEVILLE BARNETT - A SUCCESSFUL CONCLUSION	James R. Dickson	72
MORE ON THE MCGONAGALLS	Brian Howes	77
BIBLIOGRAPHIC NOTES ON CAPTAIN R.M. WESTMACOTT'S "SKETCHES IN AUSTRALIA"	Michael Organ	79
REVIEWS. J. Sedy, <i>Melbourne's radical bookshops.</i>	Jürgen Wegner	81
T. Mills, <i>Rare books collections in Australian libraries: an annotated bibliography</i>	John Fletcher	83
NOTES & QUERIES		
F.F. Bailliere	John Holroyd	85
Dr D.A. Mackaen	John Fletcher	88
A cricket heavyweight	John Hayes	89
"Stapylton" booklaunch		90
From the Officina Brindabella		90
Publications received		91
One of my favourite books	David Miller	92

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BIBLIOGRAPHIC NOTES ON  
CAPTAIN R.M. WESTMACOTT'S  
"SKETCHES IN AUSTRALIA"

Michael Organ, Woonona, N.S.W.

During my investigations into the life and times of Robert Marsh Westmacott (aide-de-Camp to Governor Bourke from 1832 to 1837; artist and settler in Illawarra from 1837 to 1847), a somewhat mysterious figure like so many of our early colonial artists, I have encountered a number of variations of his published collection of eighteen tinted lithographs plus descriptive text, entitled *Sketches in Australia*.

The question arose: is the work a true 'book' or merely a collection of lithographs?

The bibliographic details for this work are described by Ferguson, 4955. However my studies have revealed a number of important variations of his description.

The common form of *Sketches* (as described by Ferguson), is of eighteen tinted lithographs plus descriptive text, issued in three parts in stiff dun coloured wrappers, each wrapper being identical, apart from the insertion in ink of the numbers '1', '2' or '3'. These wrappers have ornate, Australiana borders composed of aboriginal implements plus native flora.

A variation on this cover was encountered in a copy in the Mitchell Library collection. This wrapper has no number - possibly suggesting that it is a single cover for the complete collection of lithographs - and possesses plainer, more geometric borders than the previous type.

The publication date of these works is not stated on the wrappers. However within the descriptive text accompanying lithograph No.1 (View of the North Head of Port Jackson Harbour), Westmacott states "...at this time, 1848...." and it is this date which is most widely suggested for the initial publication

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of *Sketches*.

While the above notes outline simple variations of Ferguson's bibliographic description, a copy of *Sketches* in the collection of the Illawarra Historical Society is markedly different in form from his description. This copy has an original, green morocco binding, plus gold lettering on the spine and cover. More importantly, it contains a *title-page* in lieu of the original wrappers. None of the copies in the Mitchell or Dixson Libraries, or those described in various antiquarian booksellers' catalogues, possesses, or contains reference to this title-page.

The title-page refers to R.M. Westmacott with the letters 'F.G.S.' and 'F.R.G.S.' (i.e. 'Fellow of the Geological Society' and 'Fellow of the Royal Geographical Society') Since Westmacott did not become a F.R.G.S. until April 1852, nor a F.G.S. until sometime during 1852, this copy of *Sketches* must have been produced after those dates.

I would suggest that Westmacott had the remaining copies of his 1848 lithographs bound, with the newly printed title-page, sometime after April 1852, and the I.H.S. copy is one of these. A similar copy is also held by the library of the Royal Geographical Society. I know however of no other copy in Australia which also contains this title-page.

We have therefore three forms of R.M. Westmacott's *Sketches in Australia*:

- (1) As described by Ferguson; issued in three parts, in wrappers with ornate Australian borders. (1848)
- (2) As described by Ferguson, but issued in one part, in a wrapper with simple, geometric borders. (?1848)
- (3) As described by Ferguson, but issued in book form with new title-page, sometime after April 1852.

A final variation encountered in the Dixson Library collection (Q 84/88) and marked "J.W. Westmacott, 1849", is a beautiful copy of *Sketches* with the 18 tinted lithographs all *hand-coloured*. It is likely that this is the form in which Westmacott had hoped to present all of his copies of *Sketches*. Most likely, monetary constraints prevented this work from being carried out, for Westmacott had become insolvent during the depression of the 1840's during his time in New South Wales.

By comparing the tinted lithographs with those which were later hand-coloured, we can see how the different tints used (in this case blue and cream) formed a base for the later overlay of individual colour by hand.

In the final, hand-coloured form, the plates for Westmacott's *Sketches in Australia* are true works of art.

## REVIEWS

Sendy, John. *Melbourne's radical bookshops: history, people, appreciation*. Melbourne, International Bookshop, 1983. 151pp. illus. paperbound. \$6.95

Australian anarchists this year held a conference in Melbourne to celebrate 100 years of anarchism in Australia. That anarchists still remain active in Australia - there are no less than two anarchist bookshops in Sydney as well as some nine other radical bookshops - is an indication of our considerable radical heritage. Then as now radicals have had to rely largely on their own resources in production and distribution of literature, a process fraught in the past with no little danger when one remembers the fate of J.A. Andrews, the anarchist theoretician, printer and publisher, gaoled for three months in 1894 on the technicality of having issued a pamphlet without an imprint!

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