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BOOK REVIEWS

Captain S.A. White

Rob Linn. "Nature's Pilgrim. The Life and Journeys of Captain S.A. White, naturalist, author and conservationist", 1989. S.A. Govt Printer: Adelaide.

Captain S.A. White lived from 1870 to 1954, a time scarcely documented in the natural history of South Australia or Australia. Most historical works tend to concentrate on earlier explorers, many of whom were naturalists or were accompanied by naturalists on their expeditions. By the time S.A. White began his work Australia had been mapped and numerous natural history items had been sent back home to the 'Old Country'. Just as his father, Samuel White, had provided bird specimens for John Gould at an earlier time, S.A. White provided bird skins for the Australian born but English-based, Gregory M. Mathews for the latter's large work "The Birds of Australia." Many of the type specimens in this work were based on S.A. White's collections.

But Captain White did not only collect bird skins, although this was his field of expertise. On his expeditions into the area between Oodnadatta and Alice Springs in 1913, between Oodnadatta and the Musgrave Ranges with the Royal Geographical Society in 1914 and between Farina and Innamincka with the South Australian Museum in 1915-16, White and his helpers collected mammals, lizards, frogs, fish, molluscs, spiders, insects, crustacea, stomach contents of birds, water samples and plants. All scientific results were written up in the Transactions of the Royal Society and a number of newly described insects and plants were named after him or from his collections. Amongst the plants described as new by J.M. Black were *Panicum whitei*, *Toxanthus whitei* (= *Millotia greevesii*), *Trichinum whitei* (= *Ptilotus parvifolius*), *Eremophila neglecta* and *Bassia inchoata* (= *Threlkeldia inchoata*).

Linn provides a thorough background to White's forebears, but unfortunately in Chapter 1 fails to distinguish carefully enough between Samuel White the father and Samuel White the son. It was not until reaching the end of this chapter that this reader (and others) realized it was the father who was the subject of the first chapter. Perhaps the title of the chapter is at fault or alternatively reference to a simple family tree may have saved this confusion.

Chapter 2 covers the development of S.A. White as a naturalist along with his Boer War experiences and collecting expeditions in East and South Africa. On his return from South Africa he married Ethel Rosina Toms, a fellow ornithologist, who participated in all of White's earlier forays throughout South Australia and who is deserving of a higher profile in South Australian history. The rest of the chapters cover the various expeditions undertaken by White along with his growth as an outspoken supporter of conservation matters.

White was instrumental, in his role as chairman of the native fauna and flora protection committee of the field naturalist section of the Royal Society, in the establishment of the Flinders Chase nature reserve on Kangaroo Island, the first park allocated for conservation purposes in South Australia. He personally, and at his own expense, travelled the East-West railway line in 1917 destroying the 'imported-pest', the sparrow, in an effort to stop it reaching Western Australia, a practice which continues to this day. He was also an outspoken supporter of tribal Aborigines, bemoaning many times the effect of the white man and the "debasement effects of civilization" on these people, although his concern did not extend to those Aborigines who were not "full-blood".

Captain White was continually at odds with others. His support of the concepts of Gregory M. Mathews introduced him into a heated nomenclatural debate with the rest of the Australian ornithological community on the use of trinomials rather than binomials, an area of the book perhaps not clearly explained to the general reader or even those with some knowledge of

systematics. In his expedition with the South Australian Museum in 1915-16 he clashed with the Board about ownership of photographs and who should write up the ornithological account of the expedition. In his public lectures and writings in the press his support of the Aboriginals' cause and his criticism of farmers for wanton destruction of the native fauna can hardly have endeared him to many. Allegations that he "was a crank" and interfered in things that didn't concern him show parallels with views encountered concerning the conservation movement today. What a pity that much of what he fought for is now lost to us today.

S.A. White's botanical specimens from his expeditions are now housed in the State Herbarium of South Australia and botanists working on South Australian plants are familiar with his name. I recommend the book as a background to the man although those searching for background detail on specimens collected on his expeditions other than birds would do better to consult the original accounts published in the Transactions of the Royal Society between 1913 and 1918. My major regret on reading the book has been the incompleteness of the scientific side. Documentation of the collections of S.A. White and where they reside, his scientific publications and perhaps a list of those organisms which received their names as a result of White's collecting activities would have been valuable as an appendix.

After his epic journey by car from Adelaide to Darwin and back in 1923 S.A. White withdrew from scientific societies and the conservation movement. Why he did so at the peak of his career and at a time when his influence was probably greatest is not really established. However it does leave the reader with a feeling of deflation, especially when it is known that he lived for a further 30 years.

Rob Linn. "Nature's Pilgrim. The Life and Journeys of Captain S.A. White, naturalist, author and conservationist", pp. 172, 56 photographs and maps. (S.A. Govt Printer: Adelaide). Hard-bound. \$39.95.

R.M. Barker
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Ecology and Conservation of Tasmanian *Sphagnum* Peatlands

Whinam, J., Eberhard, S., Kirkpatrick, J. and Moscal, T. "Ecology and Conservation of Tasmanian *Sphagnum* Peatlands", 1989, Tasmania Conservation Trust Inc.: Hobart.

This is the first time management proposals have been put forward for this valuable and little understood ecosystem. These management recommendations follow on from extensive collections of field data and are timely in view of the threat to the future of the Tasmanian *Sphagnum* peatlands from peat-mining and moss-harvesting.

The authors give an overview of the types of *Sphagnum* peatlands in Tasmania, describing both vascular and non-vascular plants, their communities and the invertebrates associated with them. The likely effects of grazing, fire and harvesting on the ecology of the *Sphagnum* peatlands and their implications for management and conservation are discussed. The data are presented in 10 Tables and 16 Figures which include 18 maps.

Whinam, J., Eberhard, S., Kirkpatrick, J. and Moscal, T. "Ecology and Conservation of Tasmanian *Sphagnum* Peatlands", pp. 107, 16 figs and several pen and ink illustrations (unnumbered) by Jo Eberhard. (Tasmanian Conservation Trust Inc.: Hobart). Softbound. \$9.50 plus postage.

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A guide to herbarium techniques

Forman, L. & Bridson, D. "The Herbarium Handbook", 1990.
Royal Botanic Gardens: Kew.

The herbarium has been the main aid to plant taxonomy for more than 200 years, yet there is little literature readily available on the many techniques often developed independently throughout the world. Where Womersley (1981), the only other handbook on the market, addressed the problems from the running of an herbarium serving a local flora, the wider approach presented here, based on an international herbarium such as Kew, present points of interest to beginners as well as experienced taxonomists. Both books deal largely with similar subjects and only their approach is different. While Womersley (1981) is written for the beginner, tracing a collection from the field through various steps into the herbarium for subsequent research, "The Herbarium Handbook" starts with the maintenance and running of a herbarium. Throughout the latter and especially under "additional techniques" specialist hints abound when discussing subjects such as rearranging of a herbarium collection, preparation of illustrations or checklists and collectors and their itineraries. The wide range of information on collecting techniques for trees to fungi shows the extensive experience an international herbarium can draw on. The final chapters on "economic botany", "ecology" and "conservation" may seem marginal but illustrate the real value of the herbarium as a repository of all botanical information however tangential to taxonomic research. Since basic plant taxa have largely been described in many parts of the world a study of their detail biology including their relation to their environment is now essential.

Throughout the book clarity is preserved by a concise text but this is not at the expense of reasoning. One might argue an extravagant amount of space was allotted to the "herbarium knot" (pp. 21, 22) or the mounting of herbarium specimens (pp. 54-59) in spite of their usefulness. There are obvious imbalances and one is inclined to excuse these as the text is based on lecture notes which so often stress particular views. The text would have benefitted from closer editing not so much on individual style of the contributors but rather inconsistencies such as headings on pp. 16, 26 and 188. It seems unnecessary to have an obvious bias towards techniques used at Kew for an "International Diploma Course in Herbarium Techniques", as one is informed in the foreword. This is particularly evident in curatorial discussions as for instance it is not mentioned that most botanists and archivists agree that there are a number of advantages in placing each herbarium sheet in an individual folder. There is still room for basic information as found in Fosberg & Sachet (1965) although it also has a specialised approach. The lack of finishing touches, intended or otherwise, may not make the work the definitive herbarium handbook, but everybody will agree that it is a guide to a wealth of valuable information clearly presented.

Forman, L. & Bridson, D. "The Herbarium Handbook", pp. 213, figs. 52. (Royal Botanic Gardens: Kew). Softbound. £12.

References

- Fosberg, F.R. and Sachet, M-H. (1965). Manual for Tropical Herbaria. *Regnum Vegetabile* 39: 1-132.
Womersley, J.S. (1981). Plant collecting and herbarium development. *FAO Plant production and protection paper*. 33.XI. Rome.

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A well presented flora of Hawaii

Wagner, W.L., Herbst, D.R. & Sohmer, S.H. "Manual of Flowering Plants of Hawai'i, 1990. University of Hawaii Press in association with Bishop Museum Press: Honolulu.

The unique flora of the Hawaiian Archipelago has been matched by a thorough taxonomic treatment compiled with the assistance of many specialists. This flora is well presented, printed in two columns, well illustrated, accompanied by synonyms, but without cumbersome nomenclature which will be published separately, and filled with much additional information.

Among the introductory chapters a detailed account of the geology, weather and vegetation types are followed by technicalities such as collectors in the area and keys to the classes, subclasses and families. A phylogenetic list of and keys to the families and higher taxa (according to Cronquist 1981) is provided, but then the descriptions within the dicots and monocots are alphabetically arranged according to family and in turn their genus and species. The descriptive part provides keys to all the taxa, synonyms, common names in English and/or Hawaiian, brief notes on their distribution and ecology as well as whether the plant is naturalised, indigenous or endemic. The rarer endemics are given a rarity rating according to the system of the IUCN, the naturalised plants accompanied by the first known record of the plant in the area. Chromosome numbers and additional notes are stated where available. Over 50% of the species are illustrated by clear line drawings to scale. This well presented manual is complete with glossary, references (for a complete bibliography see Mill et al. 1988) and an index of 120 pages.

It is the first flora of the flowering plants of Hawaii since 1888, describing 1817 species or 1963 taxa of which 1094 or 56% are native, or conversely a spectacular 44% of the taxa are introduced. A unique 89% of the 956 native species is endemic.

Wagner, W.L., Herbst, D.R. & Sohmer, S.H. "Manual of the Flowering Plants of Hawai'i", 2 vols, pp. 1853, plates 240, figs 29. (University of Hawaii Press in association with Bishop Museum Press: Honolulu). Hardbound. US\$85.

Reference

Mill, S.W., Gowing, D.P., Herbst, D.R. & Wagner, W.L. (1988). "Indexed Bibliography on the Flowering Plants of Hawai'i". (University of Hawaii Press: Honolulu).

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