

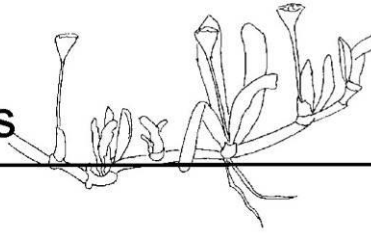
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Environmental Services



My name is Bindy Datson – I was born in New Zealand (13.09.1951), though now I am an Australian citizen.

My passion is natural salt lakes, especially the halophilic and halotolerant flora and fauna. I emphasise natural salt lakes as in Western Australia there are many lakes that have become saline as a result of land clearing. I became interested in the members of the Salicornieae tribe of the Chenopodiaceae because these plants have many species in Western Australia, some of which have been recently discovered and not yet named. When I began researching these plants (commonly known as Samphires) in 1998 I discovered that other than the 1980 'A revision of the Australian species of Salicornieae' by Paul Wilson of the WA Herbarium there was very little information available. I began drawing the specimens I was collecting and writing notes about them, including soil sample data from beneath the plants.

The resulting information became a monograph published by the Western Australian Department of Conservation in 2002.

For the last 20 years I have been working as a private consultant with my husband Mark Coleman specialising almost exclusively in salt lake research and monitoring. This work has mostly been in the Goldfields region of Western Australia on various lake systems. We have done some work for the Western Australian Department of Conservation on saline lakes in the Wheatbelt region but found this work to be less satisfying as the lakes are all degraded or compromised.

In more recent years my interests expanded to include the aquatic invertebrates found in the Goldfields lake systems, especially the crustaceans. Many of the lakes we have been asked to evaluate have had no previous research and it has been common for us to find undescribed species of Brine Shrimp and sometimes Samphires.

Publications:

‘Samphires in Western Australia – A Field Guide to Chenopodiaceae Tribe Salicornieae’, B Datson, ISBN 0 7307 5526 6.

‘The wetlands of the Lake Carey catchment, northeast Goldfields of Western Australia, with special reference to large branchiopods’ B.V. Timms, B. Datson & M. Coleman, 2006, Journal of the Royal Society of Western Australia 89: 175-183.

‘The effect of salt on germination of samphire species’ J.E. Purvis, B. Datson, K. Meney, J. McComb and M. Coleman, Saline Lakes Around the World: Unique Systems with Unique Values. S.J. and Jessie E. Quinney Natural Resources Research Library, Logan, Utah, USA, 2009

Presentations:

‘The Ecology and Distribution of Samphires in the Goldfields’, Salt Lake Workshop, Datson, B., Centre for Land Rehabilitation, The University of Western Australia, 6th September 2001

‘Understanding Species Zonation of Samphires (Salicornieae) in the Goldfields of Western Australia’ Datson, 2002 ISSLR Shira Lake

‘Field Study of the Invertebrate Fauna of Wetlands near Lake Carey, Western Australia’, Datson, Coleman, Timms, ISSLR Perth, 2005

‘The effect of salt on germination of Samphire species from Lake Carey’, Datson et al, ISSLR Utah 2008

‘The effects of mining on a salt lake in the Western Australian Goldfields - Observations at Lake Carey from 1999 to 2007’, Datson, ISSLR Utah, 2008

‘Australian Arid Region Wetlands - Lake Carey and Environs’ Datson, Coleman, The Hebrew University of Jerusalem, Eilat Field Study Station, Israel, 2010

‘Aquatic Invertebrate Fauna in the Lake Carey Wetlands (Western Australia): Species Variation According to Salinity, pH and Turbidity’, Datson & Coleman, ISSLR Mar Chiquita, Argentina, 2011

Reports – my work consists largely of environmental evaluations and monitoring for mining companies and for each job a comprehensive report is written for use by the regulators and by the companies to assist them in their environmental management. Some of these reports are listed below.

Aquatic Invertebrates

‘Field Study of the Invertebrate Fauna of Twenty Two Wetlands near Lake Carey, February and April 2003’ Datson & Coleman for the Lake Carey Catchment Management Group

‘Field Survey of the Invertebrate Fauna of Sixteen Wetland Sites near Lake Carey, March and April 2004’, Datson & Coleman for the Lake Carey Catchment Management Group

‘Field Survey of the Invertebrate Fauna of Wetland Sites near Lake Carey, January and February 2006’, Datson & Coleman for the Lake Carey Catchment Management Group

‘Field Study of the Invertebrate Fauna of Lake Carey after a Minor Fill Event, January 2007’, Datson & Coleman for Barrick (Granny Smith) Pty Ltd

'Field Study of 2011 Lake Carey Flood Event', Datson & Coleman for the Lake Carey Catchment Management Group

'Aquatic Invertebrate Sampling of Saline Lakes in the Lake Hope North Mining Area 2007, 2009,-2014', Datson & Coleman for Norilsk Nickel Australia Pty, Lake Johnston Operations

Vegetation

'Lake Carey Fringing Flora Baseline Survey, as part of the Proposed Wallaby Project's Environmental Evaluation, January 2000', Datson for Granny Smith Gold Mine, Wallaby Project

'Lake Carey Fringing Flora Monitoring' 2001-2013, Datson for the Lake Carey Catchment Management Group

'Monitoring of Lake Carey Fringing Vegetation in the vicinity of Wallaby Mine, Assessment of Dewatering Drawdown Impacts' 2000-2020, Datson for Granny Smith Gold Mine, Wallaby Project

'Tecticornia Review, Ten Mile and Lake Sunshine' 2018, Datson for Kalium Lakes Potash Pty Ltd

'Tecticornia Review, Ten Mile and Lake Sunshine - Supplementary Survey' 2019, Datson for Kalium Lakes Potash Pty Ltd

Other

'Harmless Discharge to Land Report' 2008-2014 Datson & Coleman for Norilsk Nickel, Lake Johnston Operations

'Environmental Baseline Evaluation Chalice West Lake for the proposed dewatering of Chalice Pit, August 2010' Datson & Coleman for Avoca Resources Ltd

'Environmental Implications Assessment for a Proposed Dewatering Discharge Increase of up to 950ML July 2008' Datson & Coleman for Rio Tinto Minerals, Three Springs Talc Operations

'Environmental Monitoring Three Springs Talc Mine, December 2009' Datson & Coleman for Rio Tinto Minerals, Three Springs Talc Operations.

'Monitoring of Chalice West Lake, Post dewatering of Chalice Pit', 2011-2021 Datson & Coleman for Avoca Resources Ltd

Salt Fields - As well as the work and research achieved in the natural environment Mark and I visit salt fields in the Pilbara twice a year to conduct biological monitoring of their evaporation ponds. The resulting reports are used as management tools by the companies to ensure optimum production of good quality salt.