

RECOVERY TEAM ANNUAL REPORT

THREATENED SPECIES AND/OR COMMUNITIES RECOVERY TEAM

Recovery Team		THROMBOLITE (STROMATOLITE-LIKE MICROBIOLITE) COMMUNITY OF A COASTAL BRACKISH LAKE (LAKE CLIFTON) RECOVERY TEAM
Reporting Period		Calendar year 2010
Current membership		
Member		Representing
Chair	Craig Oljenik	Nature Program Coordinator, DEC Swan Region
	Jill Pryde	DEC Species & Communities Branch
	Jim Lane	DEC Science Division
	Alan Wright	Ranger, Yalgorup National Park
	Dr Brenton Knott	University of Western Australia
	Fiona O'Connor	Coordinator, Lake Clifton Landcare Group
	Adam Harbeck/Natalie Lees proxy for Jane O'Malley	City of Mandurah
	Amanda Willmott/Jane O'Malley	Peel-Harvey Catchment Council
	Anthony Barr	CSIRO (corresponding member)
	Dr Matt Forbes	DEC Hydrologist
Dates meetings were held		No formal meetings were held. In 2010
One to two paragraph summary of achievements suitable for WATSNU		Summary The health of the Lake Clifton thrombolites appears to be in decline. In 2010 the lowest water levels were recorded at Lake Clifton (Lane <i>et al</i>, 2011) and data collected by DEC (and its predecessors) over a 30 year period under SW wetlands monitoring program, listed Lake Clifton as a wetland of interest or concern. The trend of increasing salinities in Lake Clifton continues to rise with a record high level in November of 2010 at 62 ppt. Key points summarized in a review conducted by Nobel (2010) indicated that: <i>The thrombolite-forming cyanobacteria Scytonema sp. is no longer found in Lake Clifton, and this is either due to being out-competed by other algal species due to environmental changes such as increased salinity, nutrients or both;</i> <i>Wetlands can be classified according to their hydrogeological connectedness to the surrounding aquifer;</i> <i>Evaporation and precipitation are the main controls on coastal wetland salinisation, and evapoconcentration can occur in areas of rainfall deficit;</i> <i>The use of ionic ratios can help to identify the sources and sinks of water within coastal wetlands</i>

Publications:

Nobel Craig. (2010). The effects of surface water levels and salinity on groundwater movement between Lake Clifton and its neighbouring wetlands, Western Australia. Research BSc (Hons) Project SCIE4501- 4504
 Faculty of Natural and Agricultural Sciences. The University of Western Australia. Supervisors: Dr. Ryan Vogwill, Dr. Ursula Salmon, Dr. Andrew Rate.

Lane, J.A.K., Clarke, A.G. and Winchcombe, Y.C. (2011) South West wetlands monitoring program report 1977-2010. A report to the WA. A report to the Department of Environment and Conservation.