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PROGRESS REPORT FOR AINGRA09084

PROJECT TITLE	Age distribution of Slender Cypress-pine (<i>Callitris gracilis</i>) within Pine Plains, Wyperfeld National Park	
INVESTIGATOR(S)	Institution and Department	
Chief Investigator	Dr Singarayer Florentine	Environmental Management, University of Ballarat
Other Investigators	Matt Gibson (University of Ballarat) and Victor Hurley (DSE)	
Students	N/A	
ANSTO Investigators	Quan Hua	
Specialist Committee	E	

SCIENTIFIC OBJECTIVES

The aim of the project is to determine the relationship between tree diameter and age of Slender Cypress-pine to predict when hollows may become available for use by Major Mitchell's Cockatoo.

This will be achieved via the completion of the following objectives:

- Determine the age of first hollow formation in Slender Cypress-pine at Pine Plains, Wyperfeld National Park.
- Determine the time frame for Slender Cypress-pine to form hollows suitable for Major Mitchell's Cockatoo reproduction.
- Determine the age classes of Slender Cypress-pine at Pine Plains in Wyperfeld National Park.

PROGRESS REPORT and RESEARCH OUTCOMES

The results obtained from this study is very valuable and strong foundation has been laid. However, additional data required for refereed publication. Recently I was successful obtaining University of Ballarat, Research Infrastructure Block Grant (AUD 19,000) to purchase tree-ring measuring stage and TSAP-Win Software. These equipments will be used to generate more data on the dendrochronology.

DATA

Preliminary radiocarbon results for Ainese 09/084								
	$\delta^{13}\text{C}$ (‰)	pMC		Expected Year of growth*	Calibrated Years at 2σ		Missing rings (+)	Interpretation
		Value	1σ		Cal AD	Prob.	False rings (-)	
1	21.0 [^]	97.14	0.35	1962	1654-1802	0.89	at least 9	13 missing rings
					1936-1953.07	0.11		
2	-22.6	102.71	0.36	1969	1956.22-1957.47		13	
					3	21.0 [^]	97.84	
1916-1955.12	0.20							
4	-22.0	98.35	0.39	1971	1669-1943	0.99	at least 17	
					1950-1954.1	0.01		
5	-20.1	98.06	0.33	1963	1665-1883	0.80	at least 12	at least 14 missing rings
					1913-1955.2	0.20		
6	-20.1	98.29	0.34	1968	1669-1943	0.99	at least 14	

					1950-1954.1	0.01		
7	-22.2	98.44	0.36	1965	1676-1940	0.99	at least 10	12 missing rings
					1950-1955.12	0.01		
8	-21.5	105.12	0.35	1969	1957.25-1958.12	1.00	12	

PUBLICATIONS / REPORTS arising as a result of your work.

The data we gathered is not sufficient to develop a refereed publication. We are working on some additional data collection, and hoping to include the data provided by Quan Hua to write a refereed paper

PhD STUDENTS

N/A