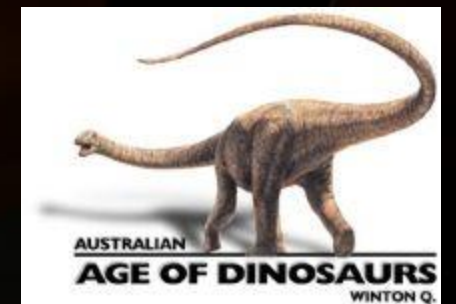


Engaging young people: Dark Skies and School STEM

Grant Salmond

Australian Age of Dinosaurs Museum

Education & Astronomy Manager





WHY ARE ORBITS IMPORTANT

the planets to scale from
[nasa.gov/solar-system/our](https://www.nasa.gov/solar-system/our)
the Sun to each plan



Dinosaurs, the solar system and stars

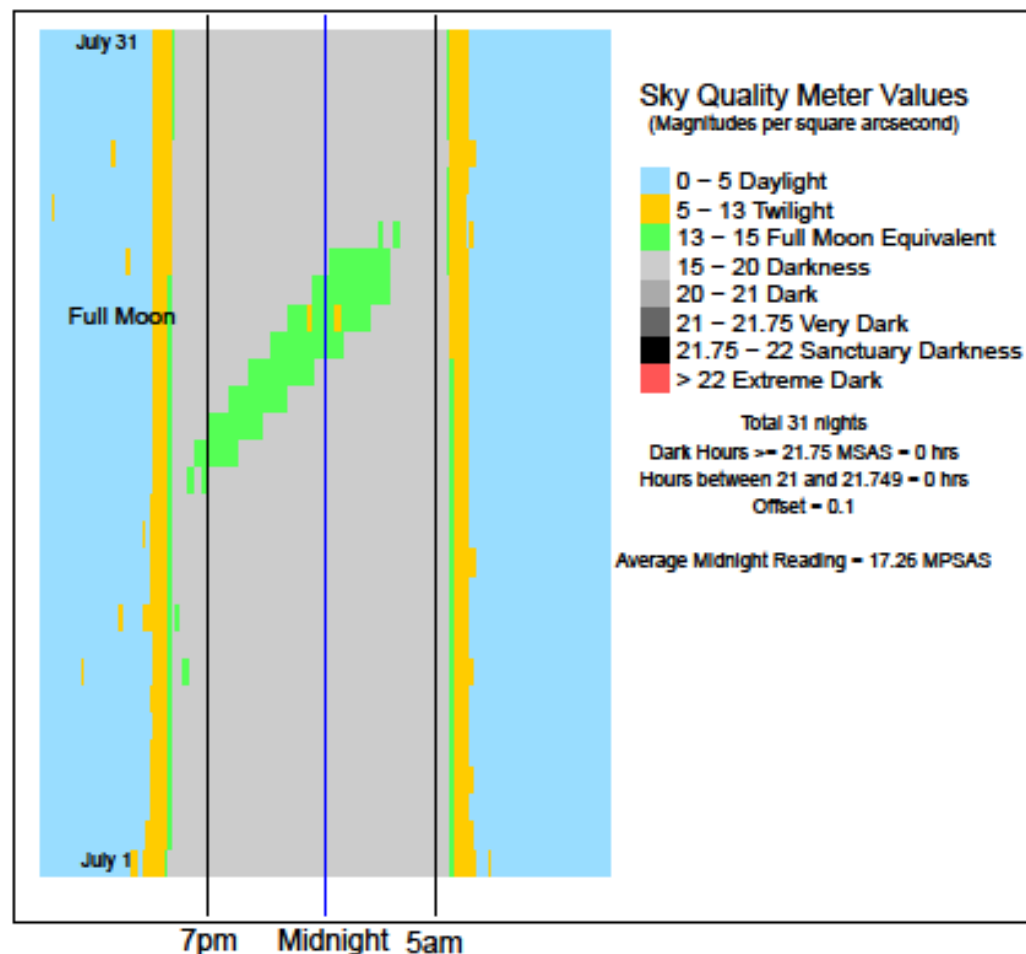
- visual comparison of data
- statistical comparison of data – the assignment
- levels of complexity from five number summary, stem and leaf, box and whisker, mean, median, mode
- learning journey in the treatment of the data



Raw data
from the Sky
Quality
Meter

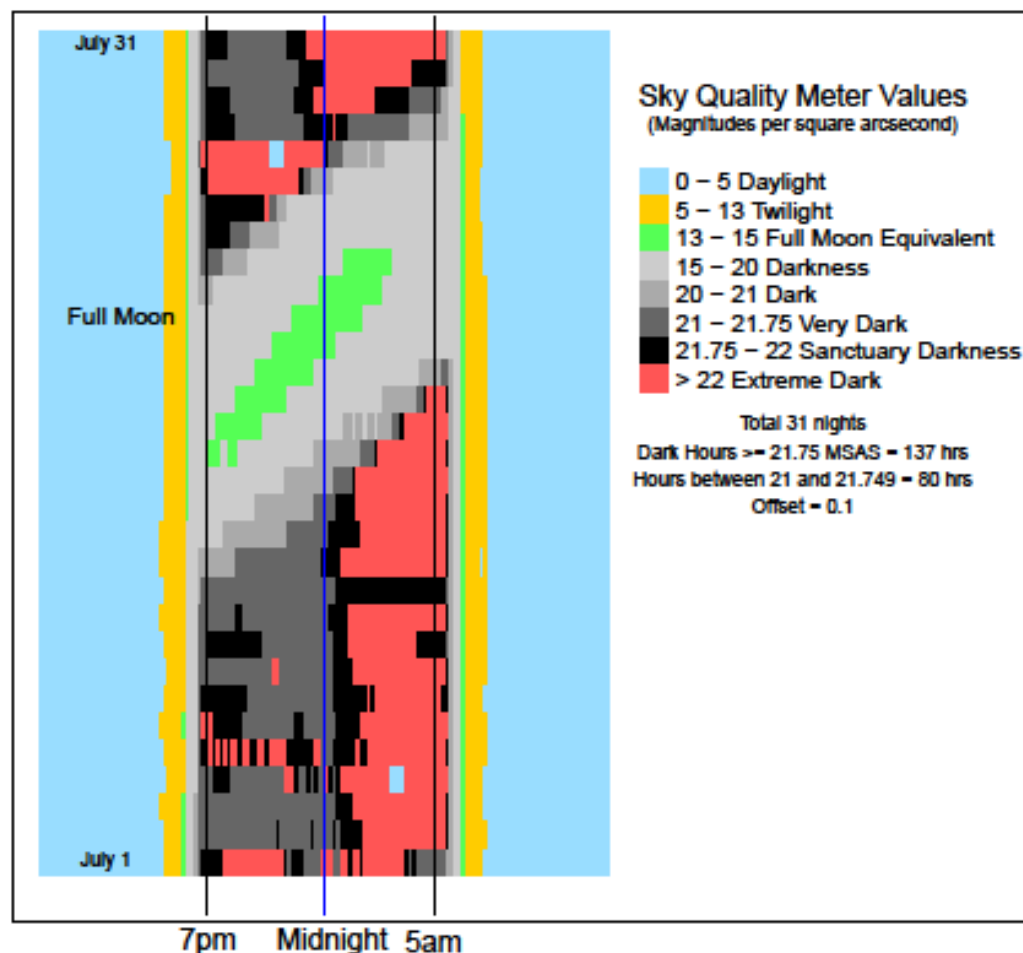
	A	B	C	D	E
28	:2024-07-01T16:30:08.000		23.8	4.94	0
29	:2024-07-01T16:40:08.000		22.8	4.94	0
30	:2024-07-01T16:50:08.000		22.2	4.94	0
31	:2024-07-01T17:00:08.000		21.5	4.94	0
32	:2024-07-01T17:10:08.000		20.6	4.94	0
33	:2024-07-01T17:20:08.000		19.6	4.94	0
34	:2024-07-01T17:30:08.000		19	4.94	6.14
35	:2024-07-01T17:40:08.000		17.4	4.94	6.46
36	:2024-07-01T17:50:08.000		17	4.94	7.27
37	:2024-07-01T18:00:08.000		16.4	4.94	8.49
38	:2024-07-01T18:10:08.000		15.7	4.94	10.61
39	:2024-07-01T18:20:08.000		15.4	4.94	13.37
40	:2024-07-01T18:30:08.000		15.1	4.94	15.9
41	:2024-07-01T18:40:08.000		14.5	4.94	18.52
42	:2024-07-01T18:50:09.000		14.5	4.94	20.55
43	:2024-07-01T19:00:15.000		14.1	4.94	21.77
44	:2024-07-01T19:10:13.000		14.1	4.94	21.95
45	:2024-07-01T19:20:14.000		13.8	4.94	22.01

**Sky Darkness Plot July 1 to July 31, 2024
Toowong SQM 1.0**



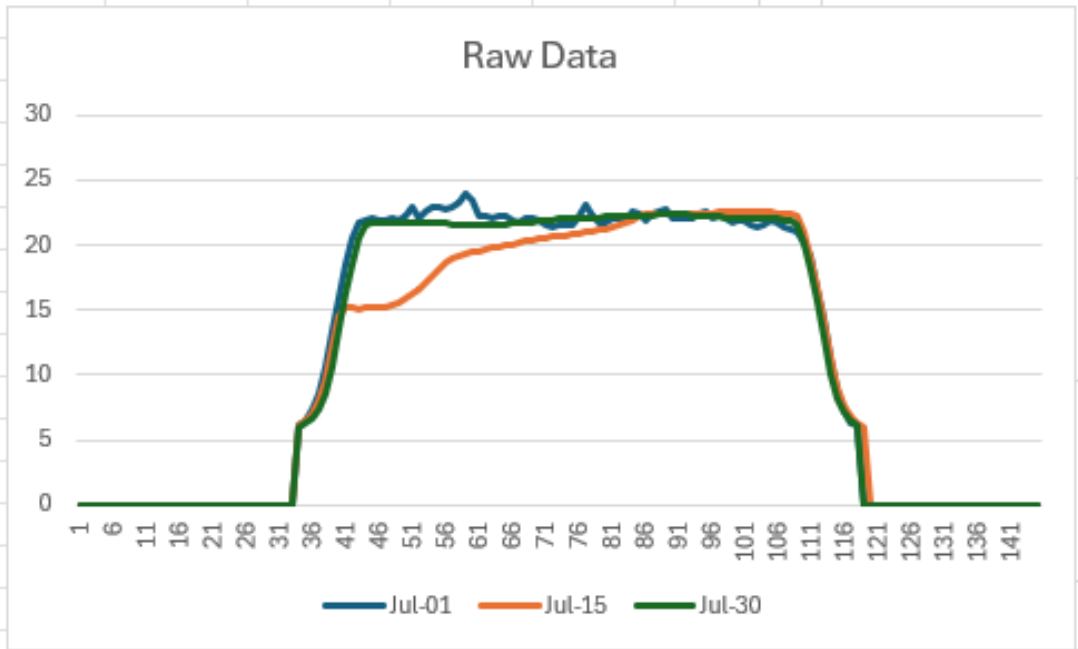
Time of Day

**Sky Darkness Plot July 1 to July 31, 2024
Dinosaur Canyon SQM 1.0**



Time of Day

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Jul-01	Jul-15	Jul-30			Jul-01	Jul-15	Jul-30		Box and Whisker						
2	0	0	0		Min	0.00	0.00	0.00								
3	0	0	0		Q1	0.00	0.00	0.00								
4	0	0	0		Median	15.90	14.50	13.52								
5	0	0	0		Q3	22.03	20.77	21.93								
6	0	0	0		Max	23.90	22.54	22.34								
7	0	0	0													
8	0	0	0													
9	0	0	0		Mean	11.73	10.85	11.50								
10	0	0	0		Median	15.90	14.50	13.52								
11	0	0	0		Mode	0.00	0.00	0.00								
12	0	0	0													
13	0	0	0													
14	0	0	0													
15	0	0	0													
16	0	0	0													
17	0	0	0													
18	0	0	0													
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20	0	0	0													
21	0	0	0													
22	0	0	0													
23	0	0	0													
24	0	0	0													
25	0	0	0													
26	0	0	0													
27	0	0	0													
28	0	0	0													
29	0	0	0													
30	0	0	0													
31	0	0	0													
32	0	0	0													
33	0	0	0													



What better engagement than dinosaurs and space to start young people thinking about light pollution?

