ObservationReport

ObservationID 240 on 2023-11-19 03:27

Object			**NGC2174**	
Common Name	Monkey Head Nebula			
Alternate Name				
Visual Magnitude	6,8			
Distance ▶Object	6400 ly			
Apparent Size	40°			
Object R.A.	06h 09.7m		20231119-061820_NGC2174_ZWOASI294_0001-01-01-01_WM	
Object DEC	+20° 30"		Link ▶Picture	NGC2174_20231119
WikiLink	https://en.wikipedia.org/wiki/NGC_2174		Descpription	Emission Nebula
			Constellation	Orion
Picture Data				
Work Status	Published		Quality	*****
Format	Photo		Picture Center R.A.	6h12m39s
Tot./Act. Frames/Pane	30	30	Picture Center DEC	+21°44'5"
H / V Panes	1	1	H/V FoV [°]	1,8268 1,2434
Exp. [s] / Frame	300		Above horizon [°]	0
Total Time / Pane [min]	150,00	150,00	View Direction	N
Camera Data	**ZWO**		**ASI294MC-Pro**	**ZWOASI294**
Camera Angle [°]	95,2342		Pixel Pitch [µm]	4,63
Gain or ISO	120		Camera Temp. °C	-10
Observation Data				
Observation Start	2023-11-19T03:27:57 UTC+/- +h		Observation End	2023-11-19T06:18:20
Observation Site	ES La Palma Jardin		Site Elevation /Bortle	470 3
Province	La Palma		Site Coordinates	28° 38' 52.0" N, 017° 53' 47.
Sky & Moon				
Sky Quality	0,7		Outside Temp. °C	21
Seeing Index 1	5		Seeing Index 2	4
Moon Phase	1st quarter		Moon Age [d]	7,3
Moon Percent %	39		Distance▶Target	UNKNOWN
MoonRise	14:03:00		MoonSet	00:15:00
Optical Config.	**TS600AS294**		**TS600AS294E100T78**	
Lens or Scope	TS600		FocalLength [mm]	599
Type Of Build	APO Triplet Refractor		Diameter [mm]	90
Brand	TS-Optics		Aperture / f-stop	6,66
Addtional Optics	M63 WO Rotator		DawesLimitLink	1,74 Arcsec
Filter	Optolong 2" L-eNhance		Optical Scale ["/px]	1,595
Focuser	TS600 Rack + Pinion			
Focuser Position	64,32		EAF Position	20752
Other Hardware & Software				
GuideScope	ZWO 30/120 mini		Mount	EQ6R-PRO
GuiderHW	ASIAIR		SessionControl	ASIAIR
GuiderSW	ASIAIR		PostProcessingSW	PixInsight
More ...				
Work Folder	2023\20231119-032757_NGC2174_La-Palma-Jardin			
Comment				
Remarks	1. Session Planning Used ASIAIR SkyAtlas to setup an plan.			

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2. Location and sky

All light frames were taken on La Palma (Canary Islands, Spain) at about 500 meters above sea level.
The sky index was 5 (very good).

3. Session Results

Good image acquisition result, the session plan took about 3 hours to complete.

4. Plate Solving and Camera Rotation Results

ASIAIR rotation measurement: 95,2342
Astrometry.net rotation measurement:
Plate Solve result (ASIAIR):

5. Post Processing

Image selection, registration, background improvement and color correction were done in PixInsight (Post Processing using PixInsight (starlust.de)).

- WBPP Batch processing
- Photometric Colour Calibration
- STD and Histrogram Tranformation for the final stretch

No further image post processing was required.
No color or hue changes have been applied; the final image is showing natural colors.

6. Lessons Learned

Enter Text

7. Main logfile entries

```
Log enabled at 2023/11/19 03:13:41
2023/11/19 03:13:41 Plan NGC2175 Start
2023/11/19 03:13:42 [Autorun|Begin] NGC2175 Start
2023/11/19 03:19:42 [Guide] Stop Guiding
2023/11/19 03:19:42 [AutoCenter|Begin] Auto-Center 1#
2023/11/19 03:19:42 Mount slews to target position: RA:6h10m36s
DEC:+20°38'6"
2023/11/19 03:19:47 Exposure 2.0s
2023/11/19 03:19:50 Plate Solve
2023/11/19 03:19:52 Solve succeeded: RA:6h10m37s DEC:+20°38'7"
Angle = -84.8778, Star number = 539
2023/11/19 03:19:52 [AutoCenter|End] The target is centered
2023/11/19 03:19:52 Start Tracking
2023/11/19 03:19:52 [Guide] Start Tracking failed
2023/11/19 03:19:52 Start Tracking
2023/11/19 03:19:52 [Guide] Start Tracking failed
2023/11/19 03:19:56 [Guide] ReSelect Guide star
2023/11/19 03:19:57 [Guide] Start Guiding
2023/11/19 03:20:01 [Guide] Guide Settle
2023/11/19 03:20:04 [Guide] Settle Done
2023/11/19 03:20:04 Shooting 30 light frames, exposure 300.0s
Bin1
2023/11/19 03:20:05 Start Tracking
2023/11/19 03:20:05 [Guide] Start Tracking failed
2023/11/19 03:20:05 [Guide] Stop Guiding
2023/11/19 03:20:05 [AutoFocus|Begin] Run AF before Autorun
start, exposure 5.0s Bin1, temperature 19.3℃
...
2023/11/19 03:22:44 Auto focus succeeded, the focused position
is 20752
...
2023/11/19 03:22:56 Exposure 300.0s image 1#
2023/11/19 03:27:57 [Guide] Stop Guiding
2023/11/19 03:27:57 Stop Tracking
2023/11/19 03:27:57 [Guide] Stop Tracking failed
2023/11/19 03:27:57 Stop Tracking
2023/11/19 03:27:57 [Guide] Stop Tracking failed
2023/11/19 03:27:57 [Meridian Flip|Begin] Wait 4min35s to
Meridian Flip
2023/11/19 03:32:32 Meridian Flip 1# Start
2023/11/19 03:32:32 [AutoCenter|Begin] Auto-Center 1#
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2023/11/19 03:32:32 Mount slews to target position: RA:6h10m36s DEC:+20°38'6"
2023/11/19 03:33:25 Exposure 2.0s
2023/11/19 03:33:28 Plate Solve
2023/11/19 03:33:31 Solve succeeded: **RA:6h12m39s DEC:+21°44'5" Angle = 95.2342, Star number = 448**
2023/11/19 03:33:31 [AutoCenter|End] Too far from center, distance = 95%(1.19796°)
2023/11/19 03:33:33 [AutoCenter|Begin] Auto-Center 2#
2023/11/19 03:33:33 Mount slews to target position: RA:6h10m36s DEC:+20°38'6"
2023/11/19 03:33:42 Exposure 2.0s
2023/11/19 03:33:45 Plate Solve
2023/11/19 03:33:46 Solve succeeded: **RA:6h10m41s DEC:+20°38'1" Angle = 95.2813, Star number = 535**
2023/11/19 03:33:47 [AutoCenter|End] The target is centered
2023/11/19 03:33:47 [Meridian Flip|End] Meridian Flip succeeded
2023/11/19 03:33:47 Start Tracking
2023/11/19 03:33:47 [Guide] Start Tracking failed
2023/11/19 03:33:47 Start Tracking
2023/11/19 03:33:47 [Guide] Start Tracking failed
2023/11/19 03:33:47 Wait for Mount Settle
2023/11/19 03:33:52 Start Tracking
2023/11/19 03:33:52 [Guide] Start Tracking failed
2023/11/19 03:33:52 [AutoFocus|Begin] Run AF after Auto Meridian filpped, exposure 5.0s Bin1, temperature 19.3℃
…
2023/11/19 03:36:30 Auto focus succeeded, the focused position is **20752**
2023/11/19 03:36:30 [AutoFocus|End] Auto focus succeeded
2023/11/19 03:36:34 [Guide] ReSelect Guide star
2023/11/19 03:36:35 [Guide] Start Calibrating
2023/11/19 03:40:49 [Guide] Calibrate Success
2023/11/19 03:40:49 [Guide] Guide Settle
2023/11/19 03:41:50 [Guide] Settle Timeout
2023/11/19 03:41:50 Exposure 300.0s image 2#
...
2023/11/19 03:56:53 Exposure 300.0s image 5#
2023/11/19 04:01:54 [Guide] Dither
2023/11/19 04:01:54 [Guide] Dither Settle
2023/11/19 04:02:56 [Guide] Settle Timeout
2023/11/19 04:02:57 Exposure 300.0s image 6#
...
2023/11/19 04:23:00 Exposure 300.0s image 10#
2023/11/19 04:28:01 [Guide] Dither
2023/11/19 04:28:01 [Guide] Dither Settle
2023/11/19 04:29:02 [Guide] Settle Timeout
2023/11/19 04:29:03 Exposure 300.0s image 11#
2023/11/19 04:34:03 Exposure 300.0s image 12#
2023/11/19 04:39:04 Start Tracking
2023/11/19 04:39:04 [Guide] Start Tracking failed
2023/11/19 04:39:04 [Guide] Stop Guiding
2023/11/19 04:39:05 [AutoFocus|Begin] Run AF 1 hours later, exposure 5.0s Bin1, temperature 18.3℃
...
2023/11/19 04:41:44 Auto focus succeeded, the focused position is **20744**
2023/11/19 04:41:44 [AutoFocus|End] Auto focus succeeded
2023/11/19 04:41:48 [Guide] ReSelect Guide star
2023/11/19 04:41:49 [Guide] Start Guiding
2023/11/19 04:41:53 [Guide] Guide Settle
2023/11/19 04:41:56 [Guide] Settle Done
2023/11/19 04:41:56 Exposure 300.0s image 13#
2023/11/19 04:46:57 Exposure 300.0s image 14#
2023/11/19 04:51:58 Exposure 300.0s image 15#

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2023/11/19 04:56:59 [Guide] Dither
2023/11/19 04:56:59 [Guide] Dither Settle
2023/11/19 04:58:00 [Guide] Settle Timeout
2023/11/19 04:58:01 Exposure 300.0s image 16#
...
2023/11/19 05:18:04 Exposure 300.0s image 20#
2023/11/19 05:23:05 [Guide] Dither
2023/11/19 05:23:05 [Guide] Dither Settle
2023/11/19 05:24:06 [Guide] Settle Timeout
2023/11/19 05:24:07 Exposure 300.0s image 21#
...
2023/11/19 05:39:09 Exposure 300.0s image 24#
2023/11/19 05:44:10 Start Tracking
2023/11/19 05:44:10 [Guide] Start Tracking failed
2023/11/19 05:44:10 [Guide] Stop Guiding
2023/11/19 05:44:11 [AutoFocus|Begin] Run AF 1 hours later,
exposure 5.0s Bin1, temperature 18.3℃
...
2023/11/19 05:46:59 Auto focus succeeded, the focused position
is 20740
2023/11/19 05:46:59 [AutoFocus|End] Auto focus succeeded
2023/11/19 05:47:04 [Guide] ReSelect Guide star
2023/11/19 05:47:05 [Guide] Start Guiding
2023/11/19 05:47:09 [Guide] Guide Settle
2023/11/19 05:47:12 [Guide] Settle Done
2023/11/19 05:47:12 Exposure 300.0s image 25#
2023/11/19 05:52:13 [Guide] Dither
2023/11/19 05:52:13 [Guide] Dither Settle
2023/11/19 05:53:15 [Guide] Settle Timeout
2023/11/19 05:53:15 Exposure 300.0s image 26#
...
2023/11/19 06:13:19 Exposure 300.0s image 30#
2023/11/19 06:18:20 [Guide] Stop Guiding
2023/11/19 06:18:20 [Autorun|End] Finish Autorun
2023/11/19 06:18:20 Plan NGC2175 Finish
2023/11/19 06:18:20 Turn Off Cooling
2023/11/19 06:18:20 [Guide] Stop Looping
2023/11/19 06:18:20 Stop Tracking
2023/11/19 06:18:20 [Guide] Stop Tracking failed
2023/11/19 06:18:20 Stop Tracking
2023/11/19 06:18:20 [Guide] Stop Tracking failed
2023/11/19 06:18:45 Mount GoTo Home POS
2023/11/19 06:18:45 Stop Tracking
2023/11/19 06:18:45 [Guide] Stop Tracking failed
2023/11/19 06:18:45 Stop Tracking
2023/11/19 06:18:45 [Guide] Stop Tracking failed
2023/11/19 06:19:42 EAF back to zero position
2023/11/19 06:19:42 Shutdown ASIAIR
Log disabled at 2023/11/19 06:19:42
```