

ObservationReport

all measures in mm

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
Object DEC +20° 30"
WikiLink https://en.wikipedia.org/wiki/NGC_2174



20231119_NGC2174_ASI294_0240-03WM.jpg

Link ► Picture [NGC2174_20231119](#)
Description 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 Site

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' 4

Sky & Moon

Sky Index Total Clouds	4,5 0 %	Moon Rise Set	14:03:00 00:15:00
Outside Temp. °C	21	Moon Age [d]	7,3
Moon Phase % Illum.	1st quarter 39 %	Moon ► Target Dist.	UNKNOWN

Optical Configuration

TS600AS294

TS600ASI294T252

Lens or Scope	TSO APO 90/600	Focuser	M90 TS600 Rack + Pinion
Type Of Build	APO Triplet Refractor	Focuser Position [mm]	60,19 EAF Steps 20752
Brand	TS-Optics	Optical Factor	1
Additional Optics	M63 WO Rotator	FoL norm actual [mm]	599 1097,644
Filter	Optolong 2" L-eNhanca	DawesLimitLink	1,74 Arcsec
Diameter [mm]	90	Optical Scale ["/px]	1,595
Aperture / f-stop	6,66		

Other Hardware & Software

GuideScope	ZWO 30/120 mini	Mount	EQ6R-PRO
GuiderHW	ASIAIR	SessionControl	ASIAIR
GuiderSW	ASIAIR	PostProcessingSW	LrC, PixInsight

More ...

Work Folder [2023\20231119_NGC2174_0240_La-Palma-Jardin](#)

Comment

Remarks

1. Session Planning

Used ASIAIR SkyAtlas to setup an plan.

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

ASI AIR rotation measurement: 95,2342

Astrometry.net rotation measurement:

Plate Solve result (ASI AIR):

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 Histogram Transformation for the final stretch
- final image was cropped by ~ 15%

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°C
...
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#
2023/11/19 03:32:32 Mount slews to target position:
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```

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°C
...
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°C
...
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°C
...
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
```