## BACKFOCUS

A Journal of the University Lowbrow Astronomers



### CONTENTS

#### 5 MAY: GALAXIES AND OTHER DELIGHTS

Our theme for May of 2022 was "Galaxies and Other Delights" after the Herb Alpert classic Whipped Cream & Other Delights and its iconic album cover. This was our very first month of the photo-roll "The Objective Lens" and the support and enthusiasm gave voice to the rest of the year's efforts.

## 11 JUNE: OBSERVERS, INSTRUMENTS, AND OBSERVING

June brought a chance to display equipment, its deployment, and to see Observers with their instruments. An especially occluded spring did not do us any favors in observing.

#### 17 JULY: THE MILKY WAY

July's theme of the Milky Way encompassed wide-field, nightscapes, reflected images, constellations, and anything remotely oriented to our home galaxy. The response to this topic was enthusiastic and varied.

Cover Image: NGC 7293 Helix Nebula Awni Hafedh



Carl Sagan



Clyde Tombaugh



Tycho Brahe



William Herschel



Edwin Hubble



Percival Lowell



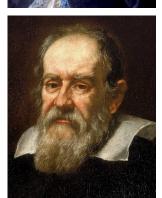
Johannes Kepler



Charles Messier



Nicolaus Copernicus



Galileo Galilei

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The editors of *Backfocus* are extremely indebted to the image authors whose work appears in these pages. Thank you.

Backfocus is an annual production of the University Lowbrow Astronomers.

Production editor: Amy Cantu. Layout editor: Jack Sprague.

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"Space isn't remote at all. It's only an hour's drive away if your car could go straight upwards."

- Fred Hoyle



An iconic Skywatcher EQR-6 Pro mount in check-out mode following its unboxing.

# GALAXIES AND OTHER DELIGHTS

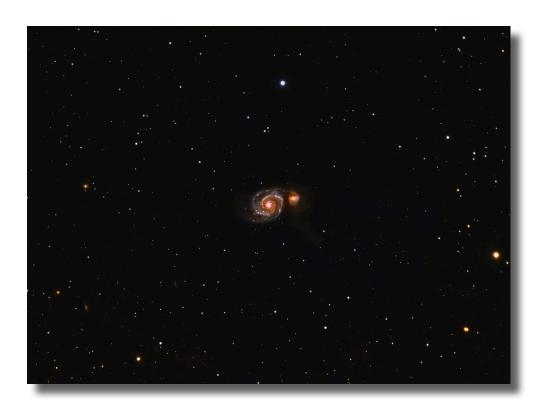
May 2022



M 105/NGC 3379, NGC 3384, NGC 3389. William Optics z73 at 480mm f/l, ZWO ASI462MC. Jack Sprague



Coma Berenices: M 62. Donovan Drew



M 51a/NGC 5194. ES 102mm f/7; ZWO ASI 1600MM Pro; HA, LRGB filters. Glenn Kaatz



M 51a/NGC 5194. William Optics 105mm f7, ZWO ASI2600MC PRO. Doug Bock



Virgo: NGC 4527/NGC 4536. Donovan Drew



Coma Galaxy Cluster (Abell 1656), in part. 8" f5 Newtonian; ZWO ASI294MC Pro. Donovan Drew



NGC 4438/NGC 4435 - "The Eyes". William Optics z73 at 480mm f/l f6; ZWO ASI462MC; 642nm-850nm band pass filter. Jack Sprague

"The near side of a galaxy is tens of thousands of light-years closer to us than the far side; thus we see the front as it was tens of thousands of years before the back."

- Carl Sagan



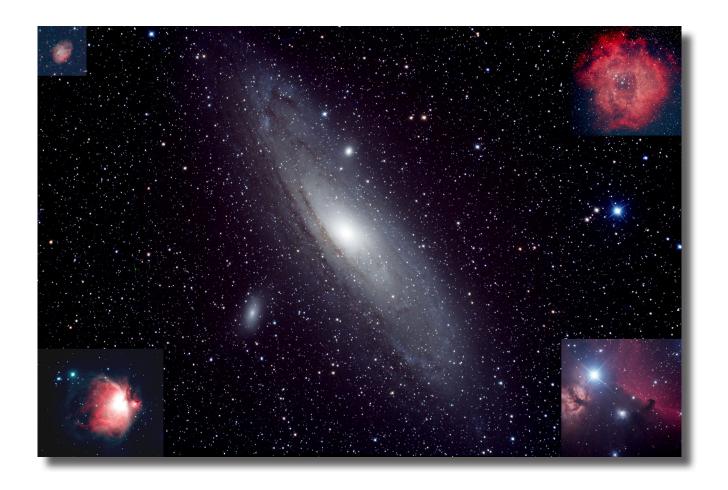
M 81/M 82. 6" RC at f9; CG-5; Canon D40. 11x60s exposures. Kenneth Ruble



Leo: M 66 group M65, M66, NGC 3628. Redcat51 250mm; Cannon 6D mkII at iso 400. Amy Cantu

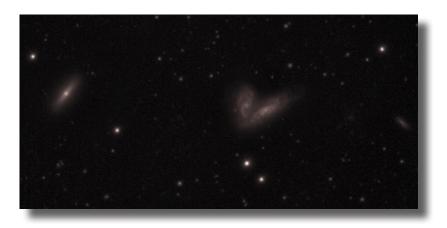


The Whirlpool Galaxy / M 51. Celestron 9.25" with 0.7 reducer; ZWO ASI183MM and ASI260MM; Astronomik HA,L,R,G,B filters; iOptron CEM60 mount. Awni Hafedh



Montage: DSO. EAA rig: 6" f2.8 reflector, live stack 15min of 10sec exposures. Dr. Brian Ottum

"No galaxy lasts forever." - Alvey Jones



Butterfly Galaxies NGC 4567/NGC 4568. William Optics z73 at 480mm f/l f6; ZWO ASI462MC; 642nm-850nm band pass filter. Jack Sprague

## OBSERVERS, INSTRUMENTS, AND OBSERVING

June 2022

"Astronomy? Impossible to understand and madness to investigate." - Sophocles



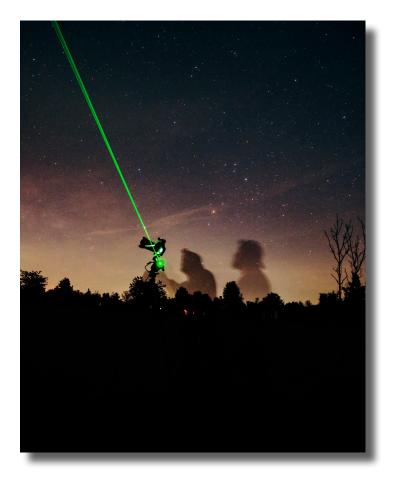
Boon Hill with Dobsonian. Doug Bock



Obsession 15" f/4.5 Dobsonian in field. Alex Swartzinski



Binocular Observation, Nightscape. Amy Cantu



Lowbrow Adrian Bradley with Green Laser, Nightscape. Amy Cantu

#### Hubble Space Telescope



James Webb Space Telescope

Alex Swartzinski at inpromptu observatory with 15" Obsession Dobsonian. Alex Swartzinski





Don Foley at Lake Hudson Dark Sky Preserve. Amy Cantu



Patrons, Ann Arbor District Library with Brian Ottum. Amy Cantu



Dr. Brain Ottum lecturing with Newtonian, AADL. (above) and Presentation with projection, Dr. Brian Ottum AADL.Note the social distancing due to covid concerns in the crowd. Amy Cantu (both photos)





Starry Night V. Van Gogh

"The most remarkable discovery in all of astronomy is that stars are made of atoms of the same kind as those on the Earth"

Richard Feynman

### THE MILKY WAY

July 2022



Nightscape with Milky Way. Adrian Bradley \*\* 1st prize photograph for RASC illustrating the effects of light pollution. Congrats, Adrian.\*\* Adrian Bradley

"The universe is a big place, perhaps the biggest."

- Kurt Vonnegut



Winter Milky Way. (right) Doug Scobel



Summer Milky Way.(left) Doug Scobel



Nightscape with Milky Way from the UP. Adrian Bradley



Nightscape with Milky Way from the boat launch. Adrian Bradley  $\,$ 



Winter Milky Way from Arizona. Doug Bock



Milky Way - On the Beach. Adrian Bradley



Large Magellanic Cloud. Tak FSQ-106ED f3.6, FLI PL16803 Mono, Astrodon LRGB, Paramount MX+mount, Starlight Xpress guide cam. 36 hours total integration. Robotic remote telescope. Glen W. Kaatz

Milky Way over Ann Arbor from Hunt Park. Amy Cantu



"Some piously record 'In the beginning God', but I say 'In the beginning hydrogen'."

- Harlow Shapley



sh2-82, Little Cocoon Nebula. Donovan Drew



Rho Ophiuchi Cloud - Mosaic. Cannon 6d mkII at 1600 iso, Rokinon 135mm. 39x60 second panels flats, darks, bias. Amy Cantu



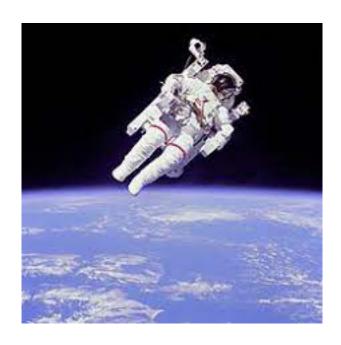
Caldwell 19 - the Cocoon Nebula. Donovan Drew



NGC 6888 the Crescent nebula. Donovan Drew



NGC 6820/6823. Donovan Drew



"The fact that we live at the bottom of a deep gravity well, on the surface of a gas covered planet going around a nuclear fireball 90 million miles away and think this to be normal is obviously some indication of how skewed our perspective tends to be."

- Douglas Adams