

REFLECTIONS / REFRACTIONS

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University Lowbrow  
Astronomers

October 2012

Volume 36, Issue 10

# Lowbrow Summer: 2012

The Lowbrows had a very active summer from the from the solstice to the first day of fall. The newsletter doesn't have the space to report on all the events in one issue but this should give you an idea of the breadth of the club's activities. It is impressive and we should be proud of what we accomplished.--Ed.

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## *Ann Arbor Public Library Loan-a-Scope Program: Telescopes Made Available to Area Families*

*This past spring the Ann Arbor Public Library, with librarian Lowbrow Amy Cantu leading the charge, launched it's telescope loan program. Eight Orion StarBlast scopes were retrofitted by Lowbrow Clay Kessler and were introduced to the public at a Lowbrow/Library observing event at the Leslie Science Center at the end of April. Thinking the program would need more publicity to catch with the public, the public relations campaign included a second observing event at the end of June. The first event, though, saw all the scopes loaned out and by the time of the second event the waiting list for scopes had grown to well over one hundred.*

*Since the the June 27th event had been publicized, it was held as scheduled, but due to the immediate popularity of the program no scopes were available for loan that night. The evening was a great success, with scores of families on hand to view the moon and Saturn.*

*Hoping to meet demand, the Library bought more instruments and held a retrofit party in the basement of the main branch August 25th, more than doubling the number of scopes available. The waiting list increased as well, though, to over two hundred.*

--Jim Forrester



Photo: Mike Radwick

Lowbrow Fearless Leader Charlie Nielsen and member Brian Ottum showing the public the sky at twilight at the June 27th event.

## August 25th: New Batch of Loan-a-Scopes Made

From the left: George Piner, Librarian and Lowbrow Amy Cantu, Mystery Man in the Hat, Charlie Nielsen and Clayton Kessler.



Photos: John Causland

Jack Brisbin and Paul Walkowski tinker away on the new StarBlasts.

From Treasurer Doug Scobel:

## 2013 RASC PUBLICATIONS: ORDER BY OCTOBER 19

Hello fellow Lowbrows,

It is now Autumn, and that can mean only one thing - it's time to order your RASC 2013 Observer's Calendar, Observer's Handbook, and/or Beginner's Observing Guide! OK, maybe fall means other things that might be more important (such as elections, Thanksgiving, and football), but calendars and handbooks are right up there too! Especially the ones published by the Royal Astronomical Society of Canada (RASC). Their wall calendars and observer's handbooks are unique, eminently useful, and second to none.

It's now time to order these publications at a substantial club discount. The Lowbrow member discount price for these publications depends on the number of items we order from RASC. The more we order, the better discount we get. Here are this year's discounted prices (all in U.S. Dollars):

Total Quantity	Observer's Calendar	Observer's Handbook	Beginner's Observing Guide
2-9	\$23.00	\$30.00	\$25.00
10-25*	\$20.00	\$27.00	\$22.00

\*RASC offers an additional discount for quantities over 25

Note that the single copy price from the RASC for the calendar and handbook are \$28.20 and \$38.20, respectively, so if as a club we order ten or more of each then that is a substantial savings. Also note that the discount prices I quote above are \$3.00 extra per copy above the RASC's discounted price, to provide the club a modest profit to help pay for club expenses. So you may want to think about buying extras for Holiday and/or birthday gifts, or you may even want to sell them at work.

You can get previews of these outstanding publications by clicking on the following links:

<http://www.rasc.ca/calendar/>

<http://www.rasc.ca/handbook/>

<http://www.rasc.ca/bog>

Please note that as usual, I will distribute these publications at the Lowbrow regular meetings - I will not be able to ship them to individual addresses (unless you pay extra for shipping and packaging costs).

If you want to order any of these publications, then PLEASE RESPOND TO ME VIA EMAIL NO LATER THAN OCTOBER 19, to allow me time to place the order and for the items to arrive in time for me to distribute at the November meeting. Please indicate which publication(s) you want and how many of each.

Orders do not have to be pre-paid: pay when you pick up your order. All I ask is that if you order, then you actually purchase them when they arrive!

So please get your orders in to me early and often! Happy Fall!

**Doug Scobel**

**Treasurer, University Lowbrow Astronomers**

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## Okie-Tex Star Party September 8-15



Photo: Nathan Murphy

*Lowbrows far and wide descended on the far western end of the Oklahoma pan handle and joined 300 other amateur astronomers at the Okie-Tex Star Party, September 8-15. Seven of the eight nights were brilliantly clear, making for quite a successful week. The perfectly timed Wednesday evening rain gave everyone an opportunity to catch up on some much needed sleep.*

*A highlight was NGC 6726, an emission nebula in Corona Australis. The bright stars blazing out of the fluorescing gas reminded everyone of the height challenged desert dwellers of the first Star Wars film making 6726 the Jawa Nebula. Check out this Astronomy Picture of the Day: <http://apod.nasa.gov/apod/ap120927.html>*

*From the left: Nathan Murphy (now of Madison, WI), a rather surprised Chris Sarnecki reacting to a somewhat unusual guest, Honorary Lowbrow Rob Campbell (Long Island, NY), Robert Wade (Ledyard, CT), Jim Forrester, George Piner and Mark Deprest.--Jim Forrester*

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### Lowbrow Calendar

**Saturday, October 13, 2012.** Open House at Peach Mt. Starting at Sunset (May be cancelled if it's cloudy.).

**Friday, October 19, 2012. (7:30PM).** Monthly Club Meeting. Documentary Film: *The City Dark*

**Saturday, October 20, 2012.** Open House at Peach Mt. Starting at Sunset (May be cancelled if it's cloudy.) (this open house is co-sponsored by the Ann Arbor District Library and the University Lowbrow Astronomers).

**Thursday, November 1, 2012. (7:00PM).** "A Voyage to the End of the Universe." Public talk by Terence Dickinson. This event is hosted by the Ann Arbor District Library and will take place in the downtown branch of the library.

# Astronomy at the Beach:

Kensington Metropark, September 21 and 22

by Paul Walkowski

Well the crowds have gone home, my scope is drying out from dew in the basement, the adrenalin rush is subsiding, all of the bills are getting paid, and the number of emails and text messages surrounding GLAAC are down to a few per day. The GLAAC organizers and I would like to thank all the Lowbrows for coming out and supporting our activities. We could not have done it without you. Many brought scopes and cameras, some brought families, and all brought good will. By my estimate we had between 35 and 45 telescopes. The welcome table greeters used hand clickers to count those who visited the tables: 500 on a wet and rainy Friday night and 1400 on a cold and breezy Saturday night. There were several different cub scout groups, a girl scout troop, a brownie troop, and a home schooler group. I noted a large number of kids under 6 years old who stood in line to look through the scopes, smothered us with "pleases" and "thank yous", and were a joy to work with. All were well behaved, fully supervised, and none of them got PB&J on my EPs! There were a fair number of families with strollers as well but they pretty much disappeared by 9pm. The other group that was extremely well represented was the over 60 crowd. I noticed that as a group they lingered in front of the EP's longer, and asked more questions than the younger folks did. The college class that showed up in other years with lists of objects to observe did not come, or at least they did not show up at my wood scope this year.

## Here a few unsolicited GLAAC visitor messages received from Facebook:

1) From Wendy L. (who also posted the pic of her son with Drew):

Our family would like to extend our deepest appreciation and most sincere gratitude to the Great Lakes Association of Astronomy Clubs. To say that we had an absolutely marvelous time would be an understatement of galactic proportions.

All of the individuals from the astronomy clubs involved could not have been more gracious, hospitable, friendly, outgoing, kind, and generous. To allow attendees to use tens of thousands of dollars' worth of precision astronomical equipment shows an amazing faith and confidence in the ability of the public to exercise proper behavior. By all appearances, as a result of the fantastic time that our beloved son, Karol, experienced because of your efforts on his behalf, the GLAAC has created an addict. He now has an astronomy addiction for which there appears to be no cure. Any parent understands the joy of seeing one's child absolutely delighted and excited about learning, racing from telescope to telescope

and marveling at his first experience with gazing at the wonders of the night sky. We will always be most grateful to the wonderful members of GLAAC who made it all possible (even though we now have to contend with our son who is intent on repeating the "make a comet" demonstration for his elementary school class because "it was really cool"). Dr. A. J. (Drew) Feustel could not have been more delightful. What a truly incredible individual, and one of Metropolitan Detroit's finest sons. His highly entertaining and educational presentation made those in attendance feel as though it is they who had walked in space six times, flown aboard the Space Shuttle, and lived aboard the International Space Station. Although Dr. Feustel is obviously an exceptionally intelligent individual, he was able to easily speak to, not down to, everyone that he met. It would be difficult to find a more friendly, outgoing, personable individual than Dr. Feustel. The word "charismatic" must have been invented to describe his personality. Forget Superman, Spiderman, and The Hulk. Our young (future astronaut) son now has a new super hero and cherishes the photograph that Dr. Feustel graciously posed for with him. NASA made an excellent decision in choosing Dr. Feustel for the astronaut corps. He is a modest, unassuming, highly intelligent individual cut from the same cloth as our cherished Neil Armstrong. We were delighted to



Photo: Dave Snyder

Mike Radwick explains telescope optics and mechanics to curious visitors at Kensington MetroPark.

have had the opportunity to meet and learn from Dr. Feustel who definitely possesses "The Right Stuff". Once again, thank you so very much GLAAC for the absolutely marvelous "Astronomy On The Beach" event. We hope to see you again soon!

From Kelly S.

2) This evenings events were outstanding! Thank you for putting the effort forth to bring us Astronomy at the Beach! The demonstrations, the 3D movie, the first-hand account of NASA astronaut Andrew Feustal's journey's in to space, and the beautiful images of space through the lens of the many telescopes available to us all. Thank you !

From Jeff B.

3) Awesome event! Traveled from Illinois to visit your event. Great planning and participation by your local clubs and colleges. We plan on attending next year!

4) Here is a blog post from a U of M student

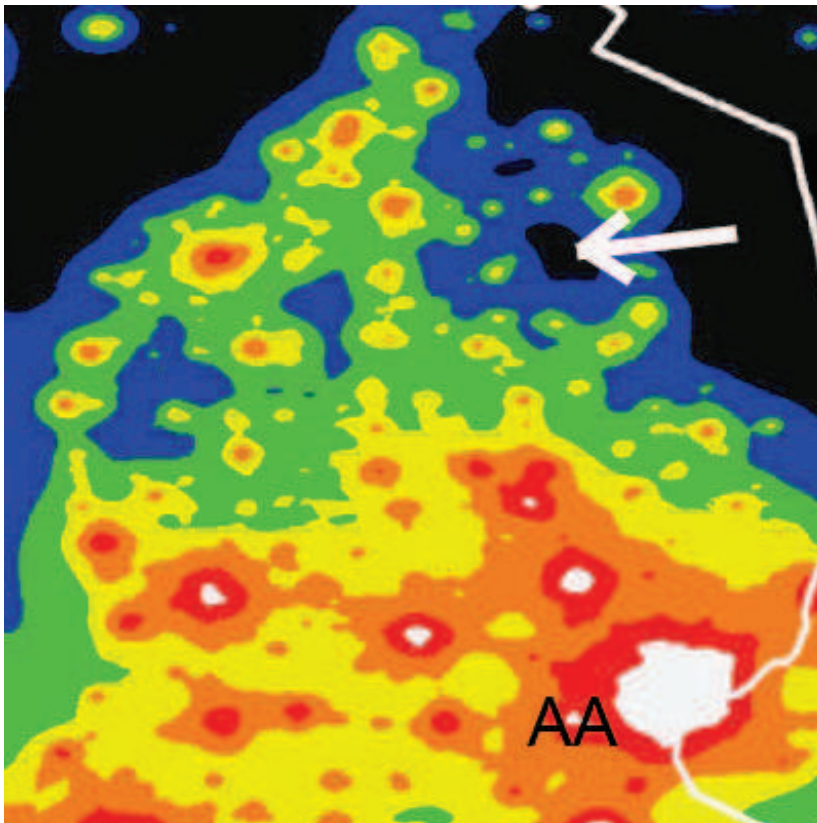
<http://michastrostudent.blogspot.com/2012/09/the-16th-annual-astronomy-at-beach-was.html>

And in answer to the question you have all been waiting for, no child tried to ride my wooden scope this year.

# The Darkest Spot in the Mitten

by Brian Ottum

By virtue of my volunteering at Bryce Canyon National Park, I'm known as a "Dark Ranger." So this summer I've been on a search for the darkest spot in lower Michigan. The journey starts with a detailed inspection of the light pollution map. You can see that there is a nice dark "hole" in the NW of Michigan:



This "hole" is located east of Mio & Fairview, in the Huron National Forest. It is just 185 miles north of Ann Arbor, a 3hr drive. I figured that there had to be observing spots on the public land up there. Tony Licata, in a posting in the Michigan Astronomers Yahoo Group, said that he'd been looking in that area and found nothing. So I went to the "DarkSkyFinder" and "Blue Marble Night Lights 2010" websites for detailed inspection. The national forest is the obvious target with just trees, lakes and the beautiful Au Sable River.

Google maps' satellite view of the area is several years old and poor resolution. However, Bing's aerial view is excellent. I found a dirt forestry road that had a good-clearing, located off a paved forestry road.

So on Monday, September 10<sup>th</sup>, I drove my small RV to the area. The entrance scared me, because the forest service had obviously dumped a couple cubic yards of dry sand on the road as it crossed a muddy low point. I got out and inspected. A tough decision – do I risk getting the RV's tires stuck in the sand, miles from the nearest person? But the lure of dark skies was too great. I backed up to the pavement, and gunned the RV. It seemed to float over the quicksand and then started up the hill. The dirt road had been slightly washed out from rains, but I was able to maneuver the RV from side to side to avoid the ruts and bottoming out. It was white knuckle time as I picked my way up the hill.

But soon I was on level ground, in a 900' long clearing, about 150' wide. I drove to the end of the clearing and parked. The site is nice and high, and not near any water. Soon the sun went down and it was time to get to work. I set up my camera, fisheye lens, and motorized mount to follow the Milky Way all night. [See the video at <http://vimeo.com/49973087> ]

Once that was done, I got out my lounge chair and binoculars. It was easy to pick out Messier objects. So I got out my pocket sky atlas and started to pick out dark nebulae. Have you ever seen the "Funnel Cloud" dark nebula above Deneb? It is huge and distinct to the naked eye.

Coyotes called in the distance, and an owl hooted. Otherwise, there was very little noise. Almost too little. Quite unsettling for being miles from the nearest person.

I awoke the next morning to see that the camera was still automatically taking pictures, but rotated to point to the ground. Since Verizon cell service was TOTALLY unavailable, I rode my bike 5 miles to the east to get a good 3G signal.

Much of that day was spent listening to the 9/11 remembrance stories on satellite radio. It takes a lot of electrons to take all-night time lapse videos so my solar panel recharged batteries throughout the day. (The camera needs power, as well as the the anti-dew heat strip, and the motor drive.)

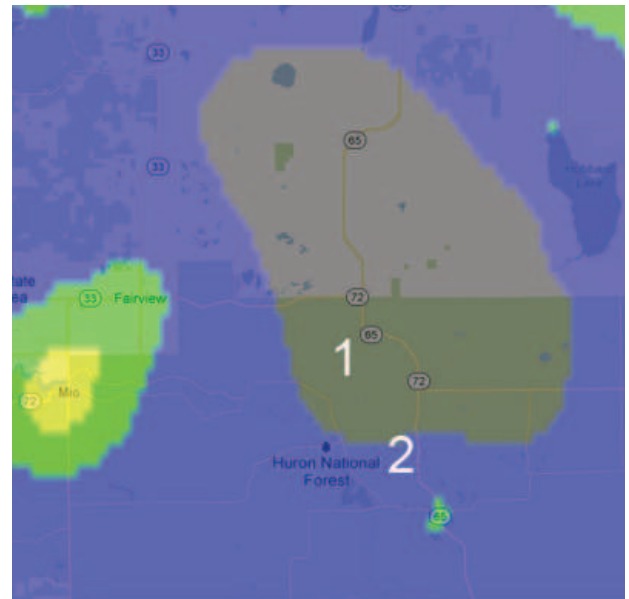
That night was also fantastic, with the Milky Way emerging quickly after twilight, directly overhead. I had fun taking some images while ZOOMING the lens. Looks like switching to warp speed!



About 1am, I'm sitting in my chair and panning the binoculars through Cygnus. All of a sudden there was a shriek and wail that originated about 100' in front of me, in the woods. Shivers went down my spine and I jumped into the RV. There was another and I figured it was a coyote calling his buddies. Embarrassed, I went back to my chair outside. He was probably more afraid of me than the reverse.

That dark spot in the Huron National Forest was great, but it has three big drawbacks. First, the entrance road is a bit scary. Second, the horizons are not good at all, with trees all around at about 30 degrees up. Third, there are NO facilities whatsoever. On the flip side, it is super secluded, super dark with no light domes at all.

Tony Licata found a more open site nearby, with better horizons. He and Mike Rousseau went there after the GLSG. The site is just a mile from the Horseshoe Lake campground in the Huron forest. We plan to all return there in mid-October, so I will have more to report. That site is "2" in the following map. My dark and rustic spot is "1."



*THEN ON TO:*

## *The Great Lakes Star Gaze, Gladwin, MI*



*Photo: John Causland*

*Observing field at the Great Lakes Star Gaze*



Photo: John Causland

*Lowbrow Norb Vance leads other Lowbrows and friends in the group photo at the Great Lakes Star Gaze. At right: Norb blasts off a big one!*

**I too had a fantastic time at Great Lakes Star Gaze 2012. Although Thursday was rained out, Friday and Saturday were both great nights.**

**I had planned to do some serious deep-sky photography on Friday, but it turned out that the seeing was not so great at the beginning. So I attached the wide-field lens to my camera and took some shots of the Milky-Way. Afterwards John Causland, Brian Ottum, and I shared the views of both eye-candy and faint-fuzzies until about 3am.**

**One traditional Saturday daytime activity is the launch of several large-scale model rockets by Norb Vance. I think both Brian and I captured a couple of good photos, but you be the judge.**

**On Saturday night I had a long list of objects I wanted to observe visually, and was successful at tracking down most of them. I think the best was when we observed Perseus-A (NGC1275 aka Caldwell 24), a galaxy cluster which showed 6 objects in my 14.5" dob, and showed 7 in John's 24". Another highlight was the view of Jupiter, which provided us with a shadow-transit (Io) and a Great Red (Tan) Spot transit. The seeing at this point (2:30am or so) had turned outstanding, so all the fine detail, such as the equatorial belt, was visible. We ended the night just after 4am by observing the Horsehead nebula (couldn't see it in the 14.5", but after some struggle we could see it in the 24").**

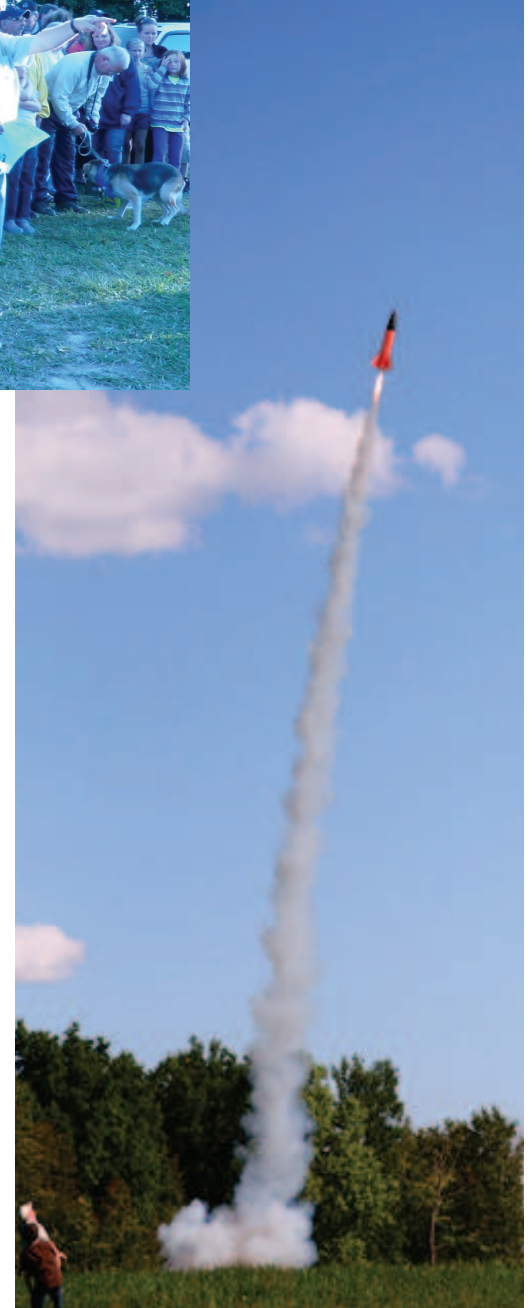


Photo: Brian Ottum

**I've uploaded the photos I took to Google Picasa. You should be able to view them at the following link:  
<https://picasaweb.google.com/109084420395312666660/GLSG>**

**Clear Skies,  
 Mike Radwick**

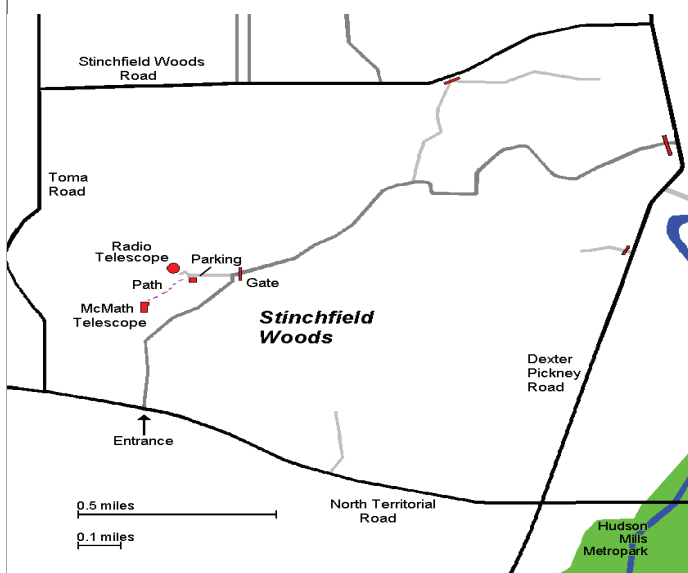
*Brian Ottum got time lapse video of the all night activity and set it to music. You can view it here:  
<http://vimeo.com/49606864>*



## Places & Times

Dennison Hall, also known as The University of Michigan's Physics & Astronomy building, is the site of the monthly meeting of the University Lowbrow Astronomers. Dennison Hall can be found on Church Street about one block north of South University Avenue in Ann Arbor, MI. The meetings are usually held in room 130, and on the 3<sup>rd</sup> Friday of each month at 7:30 pm. During the summer months and when weather permits, a club observing session at the Peach Mountain Observatory will follow the meeting.

Peach Mountain Observatory is the home of the University of Michigan's 25 meter radio telescope as well as the University's McMath 24" telescope which is maintained and operated by the Lowbrows. The observatory is located northwest of Dexter, MI; the entrance is on North Territorial Rd. 1.1 miles west of Dexter-Pinckney Rd. A small maize & blue sign on the north side of the road marks the gate. Follow the gravel road to the top of the hill and a parking area near the radio telescopes, then walk along the path between the two fenced in areas (about 300 feet) to reach the McMath telescope building.



## Public Open House / Star Parties

Public Open Houses / Star Parties are generally held on the Saturdays before and after the New Moon at the Peach Mountain observatory, but are usually cancelled if the sky is cloudy at sunset or the temperature is below 10 degrees F. For the most up to date info on the Open House / Star Party status call: (734)332-9132. Many members bring their telescope to share with the public and visitors are welcome to do the same. Peach Mountain is home to millions of hungry mosquitoes, so apply bug repellent, and it can get rather cold at night, please dress accordingly.

## Membership

**Membership dues in the University Lowbrow Astronomers are \$20 per year for individuals or families, \$12 per year for students and seniors (age 55+) and \$5 if you live outside of the Lower Peninsula of Michigan.**

**This entitles you to the access to our monthly Newsletters on-line at our website and use of the 24" McMath telescope (after some training).**

**A hard copy of the Newsletter can be obtained with an additional \$12 annual fee to cover printing and postage. Dues can be paid at the monthly meetings or by check made out to University Lowbrow Astronomers and mailed to:**

**The University Lowbrow Astronomers**

**P.O. 131446**

**Ann Arbor, MI 48113**

Membership in the Lowbrows can also get you a discount on these magazine subscriptions:

Sky & Telescope - \$32.95 / year

Astronomy - \$34.00 / year or \$60.00 for 2 years

For more information contact the club Treasurer at:

lowbrowdoug@gmail.com

## Newsletter Contributions

Members and (non-members) are encouraged to write about any astronomy related topic of interest.

Call or Email the Newsletter Editor: **Jim Forrester (734) 663-1638** or [jim\\_forrester@hotmail.com](mailto:jim_forrester@hotmail.com) to discuss length and format. Announcements, articles and images are due by the 1<sup>st</sup> day of the month as publication is the 7<sup>th</sup>.

## Telephone Numbers

President:	Charlie Nielsen	(734) 747-6585
Vice Presidents:	Sirini Sundararajan	
	Jason Maguran	
	Jack Brisbin	
	Belinda Lee	(313)600-9210
	Doug Scobel	(734)277-7908
Treasurer:	Mike Radwick	
Observatory Director:	Jim Forrester	(734) 663-1638
Newsletter Editor:		
Key-holders:	Fred Schebor	(734) 426-2363
	Charlie Nielsen	(734) 747-6585
Webmaster	Dave Snyder	(734) 747-6537

## Lowbrow's Home Page

<http://www.umich.edu/~lowbrows/>

## Email at:

[Lowbrow-members@umich.edu](mailto:Lowbrow-members@umich.edu)

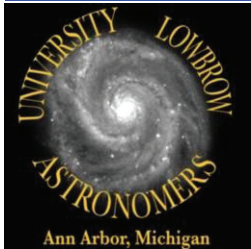




## University Lowbrow Astronomers

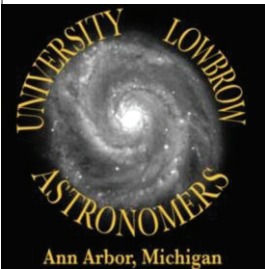
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### Reflections & Refractions



### Website

[www.umich.edu/~lowbrows/](http://www.umich.edu/~lowbrows/)



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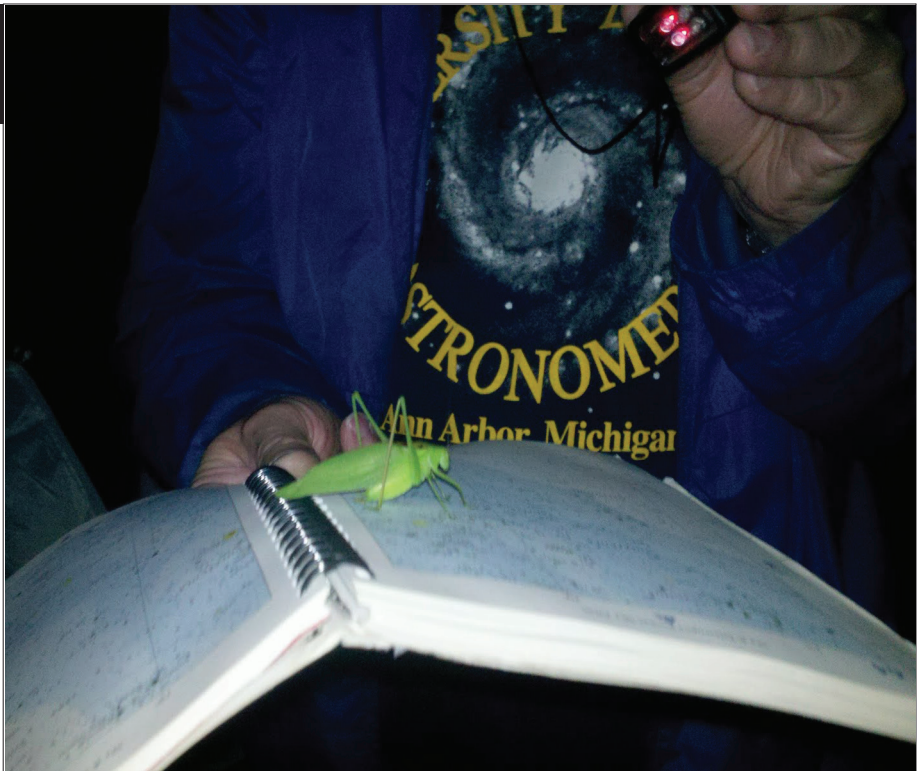


Photo: John Causland

*Star-hopping katydid advising grateful Lowbrow last July*