Monthly Notices of the Everglades Astronomical Society

Naples, FL
September 2010

Co-Presidents: Charlie Paul, Rick Piper; **Vice President:** Michael Usher; **Secretary:** Todd Strackbein;
Treasurer: Bob Gurnitz; **Newsletter Editor:** Frank Ligas (EAS.Naples.NewsLetter@gmail.com);
Fak Coordinator: Charlie Paul -- for information on viewing (cpaul651@earthlink.net , 239-410-8192)
Webmaster: Martin Zombeck (mvz@alum.mit.edu)

Home Page: http://gator.naples.net/clubs/eas

President's Message

A couple of sticky summer months have past and we look forward to the cleaner, cooler months of fall. They inch ever closer. Orion is up in the early morning now.

We had a good bit of interest in our coffee shop meetings in July and August, our off months, but now we begin another season.

Our meeting will be at the Norris Center, Tuesday, September 14th at 7:00pm. This center is at the corner of 8th & 8th.

Our deep sky nights nearest the new moon were mostly cloudy this summer. I made it out twice and only once observed at all. If you were lucky enough to get a good sky, we would like to hear about it. Some early morning skies may have been good, but it's tough to get people to observe then.

A few members and friends did our annual trimming and a massive garbage pick up this summer at the Fakahatchee. Many, many bags of assorted garbage were removed. Thank you Frank! And please extend our Thanks to those who participated.

Hope to see you at the meeting.

Clean glass and clear skies.

Rick Piper

Dates for the "Fak"

Usually the best times to go out to the Fakahatchee Strand viewing site are moonless nights. Below is a list of upcoming Saturday nights that you will often find fellow club members out there enjoying the skies with you (weather permitting).

Date	Sun Set	Moonrise	Moonset
Sept 4	7:44pm	2:48am	4:49pm
Sept 11	7:36pm	10:37am	9:48pm

Sky Events

Sept 1 – Last Quarter Moon
Sept 8 -- New Moon
Sept 15 -- First Quarter Moon
Sept 23 -- Full Moon
Sept 30 -- Last Quarter Moon

Meteor Shower: No significant meteor showers this month.

Next Meeting

Sept 14, 2010
Time 7:00 – 9 pm
At the Norris Center, 755 8th Avenue South, Naples, FL

Astronomical Trivia Question of the Month

Which one of these is not one of the official 88 constellations?

a. The Big Dipper.
b. Telescopium
c. Draco
d. Crux

**Answer on next page.*

NASA Space Place

The Turbulent Tale of a Tiny Galaxy
by Trudy Bell and Dr. Tony Phillips

Next time you hike in the woods, pause at a babbling stream. Watch carefully how the water flows around rocks. After piling up in curved waves on the upstream side, like the bow wave in front of a motorboat, the water speeds around the rock, spilling into a riotous, turbulent wake downstream. Lightweight leaves or grass blades can get trapped in the wake, swirling round and round in little eddy currents that collect debris.

Astronomers have found something similar happening in the turbulent wake of a tiny galaxy that is plunging into a cluster of 1,500 galaxies in the constellation Virgo. In this case, however, instead of collecting grass and leaves, eddy currents in the little galaxy's tail seem to be gathering gaseous material to make new stars.

"It's a fascinating case of turbulence [rather than gravity] trapping the gas, allowing it to become dense enough to form stars," says Janice A. Hester of the California Institute of Technology in Pasadena.

The tell-tale galaxy, designated IC 3418, is only a hundredth the size of the Milky Way and hardly stands out in visible light images of the busy Virgo Cluster. Astronomers realized it was interesting, however, when they looked at it using NASA's Galaxy Evolution Explorer satellite. "Ultraviolet images from the Galaxy Evolution Explorer revealed a long tail filled with clusters of massive, young stars," explains Hester.

Galaxies with spectacular tails have been seen before. Usually they are behemoths—large spiral galaxies colliding with one another in the crowded environment of a busy cluster. Tidal forces during the collision pull gas and stars of all ages out of these massive galaxies to form long tails. But in IC 3418, the tail has just young stars. No old stars.

"The lack of older stars was one tip-off that IC 3418's tail isn't tidal," says Hester. "Something else must be responsible for these stars"

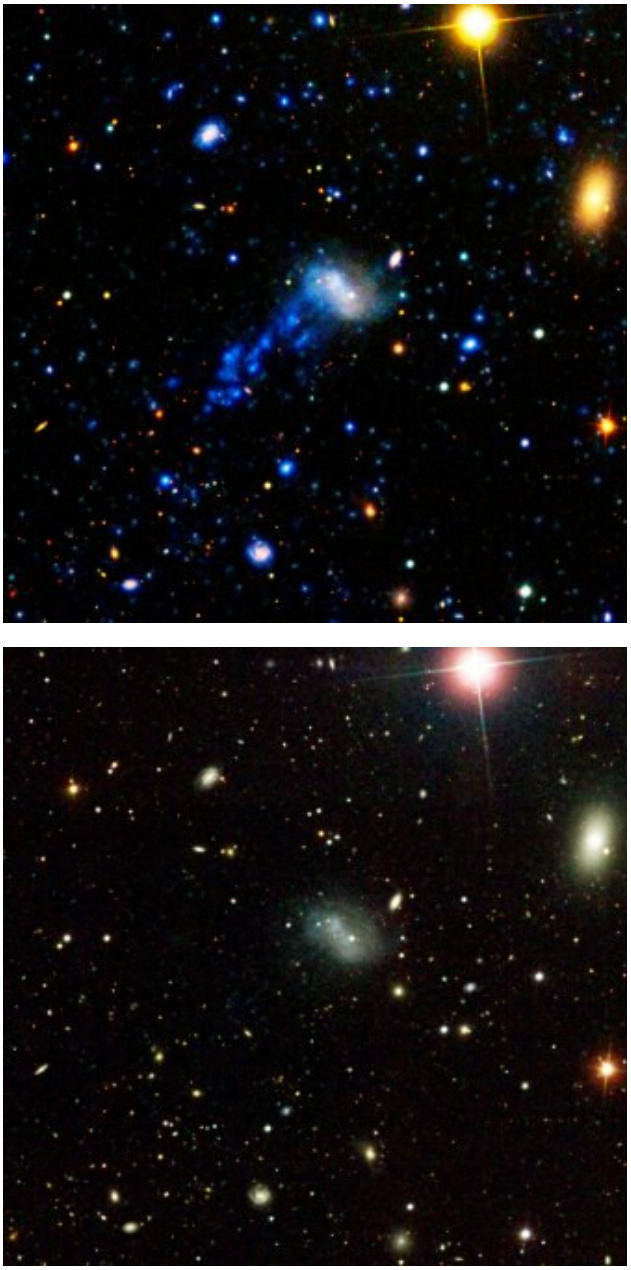
Hester and eight coauthors published their findings in the June 10, 2010, issue of The Astrophysical Journal Letters. The team described the following scenario: IC 3418 is speeding toward the center of the Virgo cluster at 1,000 kilometers per second. The space between cluster galaxies is not empty; it is filled with a gaseous atmosphere of diffuse, hot hydrogen. Thus, like a bicyclist coasting downhill feels wind even on a calm day, IC 3418 experiences "a stiff wind" that sweeps interstellar gas right out of the little galaxy, said Hester—gas that trails far behind its galaxy in a choppy, twisting wake akin to the wake downstream of the rock in the babbling brook. Eddy currents swirling in the turbulent wake trap the gas, allowing it to become dense enough to form stars.

"Astronomers have long debated the importance of gravity vs. turbulence in star formation," Hester noted. "In IC 3418's tail, it's ALL turbulence."

To many astronomers, that's a surprising tale indeed.

See other surprising UV images from the Galaxy Evolution Explorer at http://www.galex.caltech.edu

Kids (and grownups) can play the challenging new Photon Pileup game at : http://spaceplace.nasa.gov/en/kids/galex/photon/



Caption: *In the ultraviolet image on the left, from the Galaxy Evolution Explorer, galaxy IC 3418 leaves a turbulent star forming region in its wake. In the visible light image on the right (from the Sloan Digital Sky Survey), the wake with its new stars is not apparent.*

Set For Launch

Mission: STS-133
Space Shuttle: Discovery
Launch Date: Targeted for Nov. 1, 2010
Launch Time: 4:40 p.m. EDT
Launch Pad: 39A
Landing Site: Kennedy Space Center, Fla.

Space Shuttle Endeavor will fly in February 2011 as the last Space Shuttle flight.

Answer to the trivia question:

The Big Dipper is actually a part of the constellation Ursa Major, it is not a constellation by itself. By itself it is an "**asterism**", or a pattern of stars that are not a part of the 88 official constellations. Asterisms most often do not have any physical proximity to each other, only an apparent proximity as we observe them from earth.

Credit*:* *http://listverse.com/2007/11/13/top-10-cool-facts-about-space/*

2010 Membership Dues:

For the bargain price of only *$20.^{00} per family*, all this can be yours for the coming year!

- ✓ Meet with your fellow astronomy enthusiasts at least 10 times a year.
- ✓ Many opportunities to freeze/sweat/get bitten by mosquitoes in the Fakahatchee Strand.
- ✓ View planets, nebulae and many other celestial objects.

Don't miss out! Fill out this form (please print plainly) and send it with your $20 check, payable to:

Everglades Astronomical Society
P.O. Box 1868
Marco Island, Florida 34146

Name: _____
Address: _____
Phone: _____
Email: _____