

[CULTURE](#) [POLITICS](#) [SOCIAL ISSUES](#) [LIFESTYLE](#) [AUDIO & VIDEO](#)[ABOUT US](#)

Stargazing in the Heartland

Posted by **Urban Plains** | May 1, 2015 | **Culture**



Words by Avery Gregurich | Photos courtesy of Jason M. Boucher, Gooi Ying Chyi, and Steve Kawaler | April 30, 2015

Astronomer Steve Kawaler never wants to take a break from considering the cosmos. But if he does, it's

RECENT POSTS



It Takes
A
Village
May 10,
2018 |
SOCIAL
ISSUES



Iowa
Music
Venues:
Codfish
barn
music
venue
capture
s the
essence
of the
Midwest
May 10,
2018 |
CULTURE



Paintin
g the
Walls of
Des
Moines
May 6,
2018 |
CULTURE

to play baseball — preferably at first base.

“Baseball provides a connection with people and the history of this country,” Kawaler says. “It uses a different part of the brain.”

His life’s work is a little less social — and it’s also a direct paradox of his role at first. There, with his feet dug deep into the dirt, the floating white globes are easy to see, and they come directly to him.

At work, though, they don’t. He has to find them. And they’re billions of miles away.



Kawaler’s work entails searching for sun-like stars and studying them to determine if there are any planets orbiting them.

Kawaler, 57, scours the outer reaches of the galaxy from his home base at Iowa State University. He searches for white dwarf stars, or as he calls them, stars in the “death throes of our own sun.” He comes to know these far-off stars well, studying their brightness measurements, which are recorded every minute or so for years at a time. These reveal the stars’ vibrations, and in turn, tell Kawaler the fates of these stars.

He and his colleagues’ most recent discovery? A planetary system more than twice as old as ours.

Kawaler serves on the Steering Committee for the Kepler Asteroseismology Research Consortium, or KASC. He coordinates the research of hundreds of

TOP POSTS

-  After-School Graffiti Workshop Changes Youth Perspective

-  Hunting Despite Disabilities

-  A Cut Above the Rest

FACEBOOK

INSTAGRAM

URBAN PLAINS urba
n_plains

astronomers around the world who use the K2 spacecraft's data. In January, the Kepler team reported on Kepler 444, a system of five small planets orbiting a sun-like star. The system is 11.2 billion years old, compared to our own sun's youthful age of 4.5 billion years.

"It represents a whole system of planetary systems we didn't know existed. It took a while to appreciate the finding," Kawaler says. "It made me realize that 'we' necessarily haven't been here that long, but 'we' in a broader sense have been around a lot longer. It pushed my emotional concept about the age of the universe much deeper."

That appreciation began on Long Island, New York. He grew up during the "Space Race," learning the names of constellations from his brother's illustrated astronomy book. On light-polluted Long Island, it's difficult to see stars, which made it easy to learn the constellations "because you can only see the bright ones," he says.

A dilemma arose for Kawaler the first time he experienced a truly dark sky — one that still fuels his curiosity to this day.

"I was 12 or 13. We were on a family vacation somewhere in the mountains, and I couldn't find the Big Dipper. I was awed," Kawaler says.



Kawaler is on the left. On the right is Neil deGrasse Tyson, a friend and fellow New Yorker. In the middle is Jacqueline Green, an esteemed scientist at NASA's Jet

[LOAD MORE...](#)

FOLLOW
ON
INSTAGRAM

YOUTUBE



PODCASTS



[Cookie policy](#)

Propulsion Laboratory, who worked to send ultraviolet-sensitive telescopes on board spy planes to do astronomy at very high altitude. The photographer is classmate Richard Benzel, a professor at MIT and considered to be the world's expert on Pluto.

His work is among the most distant type that exists, and so his days are largely spent not only in communication with the stars, but also with his students in class and colleagues around the globe.

Occasionally, these distant collaborators and friends come and visit Kawaler in the Midwest. They come from Japan, China, Belgium, England, South Africa, and elsewhere. It's become tradition that when they make it to Iowa, Kawaler loads them up and drives them through the cornfields around Ames to The Open Flame restaurant in Gilbert. There, the stargazers feast on self-cooked steaks in the rural Midwest — often an alien experience for the world travelers.

"To a lot of people that don't know Iowa, they are pleasantly surprised," Kawaler says. "It's kind of exotic in a strange way."

Conversations at dinners like these naturally turn to the unknown. That's not unusual for Kawaler, though. The nature of existence comes up frequently in conversations like those with his science fiction-loving brother, Foster, who counted the late Star Trek actor Leonard Nimoy among his friends. It was Foster's books and space toys that first made Kawaler consider the cosmos differently. "Strangely," Kawaler says, "what grounds him in reality is his love of science fiction. He realizes that this is a very special place here. But like me, he believes that there is life elsewhere, and is hoping to live long enough to find it."



Though he's grounded on Earth, Kawaler's work exists billions of miles away.

The search, though, takes a great deal of time: eleven innings in late July kind of time. And while he waits for the latest photographs and data to come in from roaming spacecraft, Kawaler dusts off his mitt.

But although he likes to play first — “it’s always a part of the action,” Kawaler says — sometimes, for an astronomer at least, right field is more fitting. Out there, the little white globes aren’t so easy to find.

SHARE: [f](#) [t](#) [p](#) [in](#)

ABOUT THE AUTHOR



Urban Plains

RELATED POSTS



Bark, Drink,
Play

November 19,
2016

From a Drop
of Hatred to a
Ripple of
Healing

April 13, 2018

Why So
Hostile to
Hostels?

April 25, 2017

50 Shades of I
Have No Idea
What I'm
Doing

December 7,
2017

SEARCH ...

CATEGORIES

AUDIO & VIDEO

CULTURE

LIFESTYLE

POLITICS

SOCIAL ISSUES

© 2018

