

# Starry starry night in peril?

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Like other city kids, Philip Ianna couldn't connect the pinheads of light that form Cassiopeia, Orion or the Little Dipper. In fact, it wasn't until he went camping away from the "glary" lights of Philadelphia that he truly saw the nighttime sky and its myriad patterns of stars.

These days, Dr. Ianna is an astronomer at the University of Virginia and president of the Virginia chapter of the Arizona-based International Dark-Sky Association (ID-SA).

As part of his quest to make people aware of light pollution, Ianna spoke Friday evening to 45 residents at "Preserving the Night Sky," a meeting hosted by the Warren: on Garden Club at the John Barton Payne Building in Old Town Warrenton.

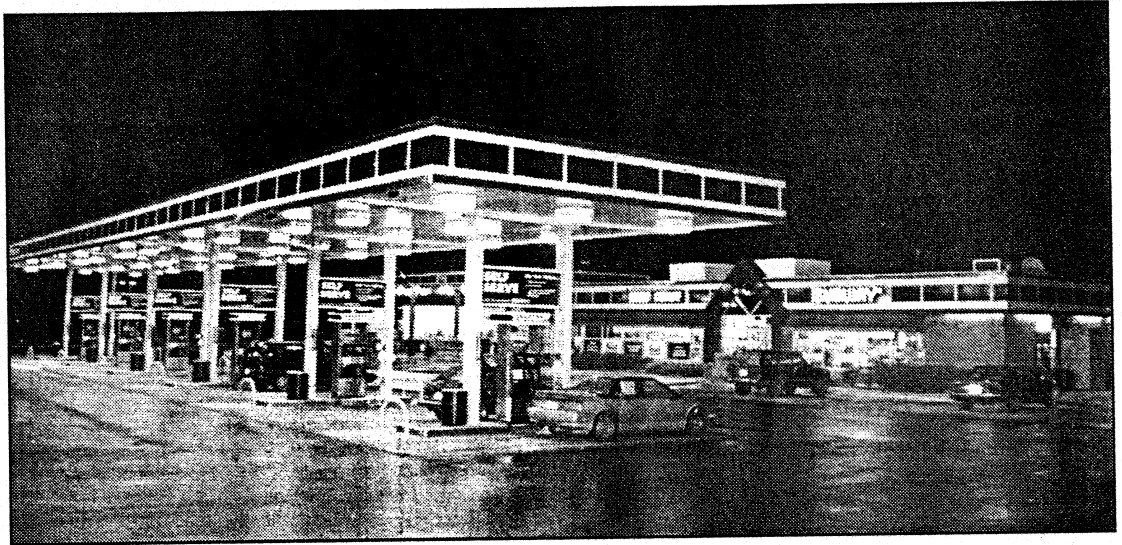
Ianna offered guidance to Albemarle County on its recently enacted outdoor lighting ordinance. He will do the same with Fauquier's, which was unveiled last May and is expected to come before supervisors early next year.

As Ianna clicked through slide after slide at the meeting, it became obvious that there are plenty of examples of lights that shine up instead of down, trespass where they needn't, confuse what they should make clear and waste energy.

Many are familiar with the effects of overlighting on their ability to drive. Although the eye is a "remarkable organ," it needs time to adapt to varying intensities of light, Ianna said. When leaving a gas station whose canopy of lights could rival a Las Vegas hotel, "You drive out into a dark area and you don't see well for a matter of minutes," he said.

But people are less familiar with what bright, artificial light does to plants and animals. Those effects are only beginning to be recorded and studied, Ianna said.

Volunteer birders with the Fatal Light Awareness Program



Times-Democrat Staff Photo/Yayoi Ayukawa

**BRIGHT IDEA?** Like most convenience stores, East Coast in Opal is brightly lit.

(FLAP) in Toronto, Canada, collect migrating birds that have slammed into light towers and brightly lit buildings. The group rehabilitates the survivors and buries the dead.

According to FLAP records, a few thousand birds every season become casualties of the city's lights, Ianna said.

They fly toward the lights, explained Ianna, because they navigate by stars and become confused by the lights.

The answer to excessive lighting is not a ban on lights, however. According to Ianna, the solutions to overlighting combine the right lighting source with the right fixture.

The county's draft outdoor lighting ordinance specifies requirements for shielding and filtering depending on the light source. A high pressure sodium lamp, for example, should be fully shielded but need not be filtered.

Once finalized and passed, the ordinance will apply to all structures public and private, recreational areas, parking lots, landscaping, billboards and signs and display and service areas.

In its current form, the ordinance prohibits the installation

of mercury vapor lamps except for agricultural uses in rural areas. It also does not allow light to trespass beyond 0.5 footcandles at property lines. That's not much light since one footcandle is the equivalent of a single lumen over a square foot. A 75-watt incandescent bulb generates 1,000 lumens.

Outdoor lighting at existing residences and businesses will be excepted under the ordinance. But if property owners make changes, they will have to submit them to zoning for approval first.

Anytime a business goes into a relatively unlit area, residents notice, according to Zoning Administrator Carolyn Bowen. The bulk of complaints she receives stem from the "new brightness" of gas station/convenience stores.

Why such bright lights? Security, of course. People like to feel safe when they're pumping gas or heading to their cars with arms full of groceries.

"That's the reason for the bright lighting," said Debbie DePollo, director of marketing for Van Management, the company that operates the McDonald's half of the Amoco/McDonald's located on

U. S. 17 just south of Marshall. DePollo said that McDonald's periodically surveys customers and safety and security always come back as the "number one concern."

Fauquier County Community Development Director Rick Carr said he believes the outdoor lighting ordinance will balance those security needs against the desires of dark-sky lovers.

Actually, Wal-Mart may be one business that shows what it means to live within the limits of a dark-sky ordinance.

Although the company would not technically be subject to the ordinance, Merle Fallon, attorney for the store, said, "I can tell you that the lights Wal-Mart is putting in would generally comply with what are called dark-sky ordinances. They will be 'fully shielded lights' and will fall within the 0.5 footcandle light trespass provision."

That should gladden the hearts of people who put a premium on darkness.

"This is a precious scenic resource that is vulnerable and delicate and easy to lose," Ianna of the ID-SA said. "You look into space and find out who you are."

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