

# IOS awards seven research grants

By Tara Beveroth

One of IOS's primary objectives is to promote scientific research and education in order to improve knowledge and awareness of birds in Illinois. To that end, IOS awards a number of research grants every year. IOS, with the support of organizations including the Chicago Ornithological Society, Kane County Chapter of the Illinois Audubon Society, and a number of individual IOS member donations, the Society was able to award seven grants of \$1,000 each in 2011. Each grant recipient, with a brief summary of their research, is listed here.

## Virginia Abernathy

Virginia Abernathy is a graduate student at Western Illinois University. Her project focuses on the potential role ultraviolet light plays in the ability of Brown-headed Cowbird hosts to discriminate between their eggs and a foreign egg. The Northern Cardinal makes a good study species because it is a common host that usually accepts cowbird eggs, although evidence suggests this bird occasionally rejects immaculate or divergent eggs. To determine if a reduction in UV reflectance of cowbird eggs would elicit a rejection response from the cardinal, she tested the following four treatments:

- Cowbird eggs covered with UV-block
- Cowbird eggs covered with petroleum jelly used as a control
- Uncoated cowbird eggs used as a control
- Cardinal eggs covered with UV-block

After UV-block was applied, brightness in the UV spectrum was significantly reduced for both cardinal eggs and



cowbird eggs. The brightness in the UV spectrum was not significantly reduced after the petroleum jelly was applied. No other color spectra were significantly affected by either coating after application; however, cardinals did reject two cowbird eggs with UV-block (11.8%) and three of their own UV-blocked eggs (20%). These data may indicate that UV light plays a role in egg recognition by the Northern Cardinal.

The lack of a significant rejection response may be due to high intraclutch variation (differences in appearance of eggs laid by a single female) found naturally within cardinal clutches and the overall similarity in appearance between cardinal and cowbird eggs.

In addition, though cowbird eggs are typically smaller, they can overlap in size with cardinal eggs, which may have prevented cardinals from evolving a rejection response toward the smaller cowbird eggs. Furthermore, cowbird parasitism is not as costly for cardinals as it is for some species, and therefore, selection pressures to evolve an ability to recognize cowbird eggs are minimal.

## Continuing Project Grants

The Illinois Ornithological Society looks forward to receiving new proposals for 2012 projects. Funding availability is variable, based on the changing economy and the political climate. The Society is always looking for ways to continue to provide grants for projects that can positively impact bird conservation and provide knowledge and awareness. Please consider

writing a check in support of the IOS grant program. IOS will take donations at any time, and the treasurer will earmark these funds. These grants are aimed at Illinois birds, and will continue to support the efforts of students and professionals who dedicate their skill and passion to studying birds of Illinois while also working to enhance and protect their future.