

## Experts ponder questions on Laguna

*SSU conference brings together scientists, biologists, government officials*

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Public desire to preserve vernal pools and endangered wildlife is running ahead of science-based ways of saving them, experts said Thursday at the opening of a four-day conference at SSU on restoring the Laguna de Santa Rosa.

Can we use sheep and cattle to eat non-native grasses?

Why doesn't the California Tiger Salamander seem to thrive in vernal pools we've constructed?

How do we keep European slugs from savaging California grasses?

How do we prevent catalytic converters on our cars from pumping out nitrogen that feeds weeds along our highways?

And what's this waxy mangrass plant that's being identified as the Laguna's public enemy No.1, even more deadly than the pesky Ludwigia plant?

These are just a few of the questions that scientists, biologists, government officials and other experts on the plant and animal habitat of the Laguna pondered as they kicked off the first assessment of Laguna preservation in 18 years. In 1989, a similar conference galvanized public support for restoration of the 254-square-mile wetlands in central Sonoma County.

Now, just as government, private industry and environmentalists are crafting a conservation strategy in which the Laguna figures prominently, scientists are releasing their findings on what works, what doesn't and what might.

Under the conservation strategy, government and private interests are fashioning a building permit process that balances development with preservation of endangered species habitat in areas like the Laguna.

Eric Lichtwardt, senior biologist with the environmental consulting firm of LSA Associates, said his company's studies have found that man-made vernal pools "do not hold water long to allow breeding that produces young tiger salamanders."

He said too many of these pools are drying up before larvae can form, which means they don't function as a permanent tiger salamander habitat.

Scientists cited the Shiloh mitigation project, created in the Laguna area as a substitute

for development at the Shiloh commercial center in Windsor, as an example of man-made mitigation that doesn't function as hoped.

Livestock grazing in the Laguna, which was once derided as destructive, is receiving new attention as some studies are finding that some animals, sometimes, feast on plants that Laguna preservationists want to eliminate.

Separate studies by Megan Keever for the University of California and by Michele Lee for LSA Associates found that sheep, when introduced to the wetlands environment at the right time of year, will boost growth of endangered plants such as the Sebastopol Meadowfoam because they chomp on competitors such as Italian Ryegrass and avoid the plant on the federal Endangered Species list.

"Sheep don't like to graze in the ponds where the Meadowfoam grows, but they do have to be kept out at the time Meadowfoam blooms," said Lee, whose study found the endangered plant succumbs to trampling by cattle.

Several scientists at the conference pointed to waxy mangrass, known by its Latin name of *Glyceria declinata*, as a new threat to the Laguna.

"I personally have seen this become a big problem in the Sacramento Valley," said wetlands consultant Steven Talley.

Denise Cadman, natural resource specialist for the city of Santa Rosa and supervisor of the city's irrigation project in the Laguna, said waterfowl are carrying seeds that distribute the dreaded plant across the Laguna.

"We thought at first it was a native plant, but then we found that experience in the Central Valley shows it can establish a 90 percent cover over an area within just five years," Cadman said.

Others, like Daniel Glusenkeamp of the Audubon Canyon Ranch said Laguna preservation efforts need to watch out for a variety of slug introduced from Europe in the 1880s that thrives on the type of native California grasses that Laguna preservationists want to bring back.

"We know slugs are having an impact, we just don't know how much," he said.

The scientific portion of the State of the Laguna conference continues today at Sonoma State University in Rohnert Park. Saturday's conference is devoted to public policy issues and Sunday's session involves tours of the Laguna and restoration projects.

Further information can be found at [www.lagunafoundation.org](http://www.lagunafoundation.org).