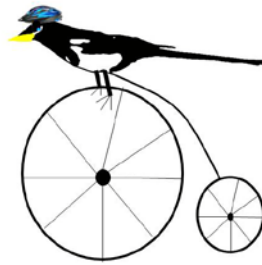


# Newsletter

## Summer 2009



*It started with a simple question:  
I wonder what would happen to Yellow-  
billed Magpies once West Nile Virus  
arrived?*

### Magpie Monitor Program

#### MAGPIE MONITORS KEEP WATCH ON NESTS AND MAGPIE NUMBERS

Valuable data has been contributed by a number of citizen volunteers. They keep track of nests multiple times weekly during the spring, collect feathers for DNA, and count magpies along their daily walks or bikes. This data helps with each of the projects outlined here!

#### IN THE DNA LAB THIS SUMMER

Veterinarian/geneticist Holly Ernest, laboratory manager/technician Lisa Goldberg, and veterinary student Ben Harmeling will be using Yellow-billed Magpie DNA analysis tools developed in our lab. These DNA tools will help us learn more about magpie genetic diversity, how their populations are structured over the landscape, and whether magpie deaths due to West Nile virus caused a "genetic bottleneck". A genetic bottleneck occurs when a large number of individuals are lost from a population resulting in loss of genetic diversity. Ben received a special STAR fellowship to work with us from the UC Davis School of Veterinary Medicine and Merck-Merial Veterinary Scholars program.

#### EBIRD COUNTS FOR MAGPIE CONSERVATION

*JUNE 5-9 2009!*

[Find out how you can participate and learn](http://ebird.org/content/ebird/ca)

<http://ebird.org/content/ebird/ca>

Ebird will share the data with us so that we can incorporate with magpie monitor information.

#### SCOTT CROSBIE'S WORK TO IDENTIFY MAGPIE DISTRIBUTION AND ABUNDANCE

Scott Crosbie and Levi Souza (both Ph.D. students at U.C. Davis) recently finished their Yellow-billed Magpie surveys for the 2007 and 2008 seasons. Magpie observations from these surveys are in use to estimate the species current distribution, population size and trend. This information is very important since the establishment of West Nile virus has apparently caused population declines since 2004 (the arrival of WNV throughout the species range). Sightings will also be used to estimate magpie densities in different habitat types. Because the species has not been studied in great detail habitat-specific information will advance the current knowledge about the species distribution in California. Scott is writing a journal paper that will detail the findings. ... *stay tuned!*

#### LEVI SOUZA'S WORK ON MAGPIE HABITAT SUITABILITY ANALYSIS

A habitat suitability analysis is a way of determining key ecological aspects of the places where a species lives. When we understand which of these ecological aspects are most important to a species and why, wildlife managers can make better judgments about where we should conserve land for wildlife. In order to accomplish this, Levi will use computer modeling to analyze bird count and habitat data collected by our laboratory and Magpie Monitors citizen volunteers. The computer model will help compare the habitat components of areas known to have magpies. Levi has a special interest in the concept of **ecological traps**. Ecological traps are places that attract animals because of some cue that used to be a reliable indicator to the species that the habitat was good. When the cue gets changed (perhaps by human-caused habitat change), it may not send the message to the animal properly.

#### NEW WAY FOR MAGPIE MONITORS TO SUBMIT INFORMATION ONLINE

For information visit the Magpie Monitor website ([www.magpiemonitor.org](http://www.magpiemonitor.org)). For those of you who have already started using it, thank you. If you would like to give it a try but have forgotten your route number (required by the online form), email us via [magpie-mail@magpiemonitor.org](mailto:magpie-mail@magpiemonitor.org) and we will look it up for you. The online form helps us to streamline and standardizing data collection.

**Magpie Monitors** is dedicated to involving the public in research to better understand the relationships among Yellow-billed Magpie populations, their habitats, genetics, and diseases such as West Nile Virus. We invite and welcome participation from the citizen volunteers. The program is administered by Holly Ernest, faculty member at the UC Davis School of Veterinary Medicine. [www.magpiemonitor.org](http://www.magpiemonitor.org)