## Wildlife Disease Association Conference Albuquerque, New Mexico 2014 [17]

## INNOVATIVE COMMUNITY-BASED APPROACH TO ADDRESS LEAD POLLUTION FROM HUNTING IN ARGENTINA WETLANDS

Andrea Caselli<sup>1</sup>, Ayelén Muchiutti<sup>2</sup>, Marcela Nabte<sup>3</sup>, Silvia Alzuagaray<sup>1</sup>, Marcelo Romano<sup>4</sup>, Hebe Ferreyra<sup>5</sup>, and Marcela Uhart<sup>1,6</sup>

<sup>1</sup> Facultad de Ciencias Veterinarias, Universidad Nacional del Centro de la Provincia de Buenos Aires, Campus Universitario, Tandil, Buenos Aires, Argentina

<sup>2</sup> Universidad Nacional del Litoral, Santa Fe, Prov. de Santa Fe, Argentina

<sup>3</sup> Universidad Nacional de la Patagonia San Juan Bosco, Puerto Madryn, Chubut, Argentina

<sup>4</sup> Centro de Investigaciones en Biodiversidad y Ambiente (ECOSUR), Rosario, Santa Fe, Argentina

<sup>5</sup> Wildlife Health Program, Wildlife Conservation Society, Ciudad Autónoma de Buenos Aires, Buenos Aires, Argentina

<sup>6</sup> One Health Institute, University of California, Davis, California, USA

For more than fifteen years, Argentina has been an international waterfowl hunting hotspot. Consequently and as expected, we have found high levels of lead from spent gunshot in wetland sediment and in ducks. Given the known toxicity risks for animal and human health, we have successfully capitalized on our findings to advocate for provincial lead shot bans, an unprecedented feat in Argentina and Latin America. However, compliance is poor due to local unavailability of nontoxic alternatives and hunter resistance. Furthermore, hunting sustainability is unknown in the absence of waterfowl population estimates and feeble hunting license records. Thus, the larger environmental health problem remains unsolved. It so transpires that a broader than science approach is needed to address this complex, multi-stakeholder and socially sensitive issue. Here we present an innovative constituency model that involves participatory research with citizens, governments and hunters, combined with community-focused education and sensitization to drive change. As proof of concept, we are using waterbird monitoring to demonstrate the strength of community interventions for conservation and to obtain information on the biology and population status of hunted waterfowl. By sharing our experience we aim to generate discussion within the wildlife health community on ways to more effectively translate science into policy; examine when and how to build on collectively generated ecosystem health knowledge; and, as important, the significance of inspiring and empowering local communities to become stewards of their natural resources.