



# FORMAL PRESENTATION ABSTRACTS

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**PINNIPEDS TUBERCULOSIS:  
THE IMPORTANCE OF MEDICAL TRAINING AND ACCESS TO ANIMALS FOR POPULATIONS  
SURVEY DURING THE SPREADING OF A POTENTIALLY ZONOTIC DISEASE**

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In the last 10 years several cases of *Mycobacterium pinnipedii*, the tuberculosis of the pinnipeds, has been identified in Patagonian sea lions (*Otaria flavescens*) and South American fur seals (*Arctocephalus australis*) in Europe. This is an often severe and contagious infectious airborne disease, that was first isolated in Australia in 1986 and shortly after in South America. The bacterium is part of the Mycobacterium tuberculosis complex, from which the human tuberculosis also belongs. It has a zoonotic potential and has been cultured in 1988 from the lungs of a trainer that had formerly worked (1983-1985) at Atlantis Marine Park in Australia where tuberculosis had been confirmed in the sea lion population at a later stage. Treatment is difficult and requires long courses of multiple antibiotics. It is a slow developing disease and often the animals display little or no symptoms. A survey performed last year has shown the spreading of the disease from imported South American wild animals to several European parks over the years, but also the increasing number of cases have been identified following a wider survey (Lacave et al., 2009). Several principles of investigations, based on visual, serologic or molecular techniques, are available but none has had 100% validity until now. The identification of latent carriers is of paramount importance, and since clinical signs are very often missing, the focus must be put on ante-mortem testing. These would comprise, among others, skin tests, chest radiographs and regular blood samplings. In many facilities in Europe, and not only in zoological settings, people encounter practical difficulties, mainly because of the access to animals (anesthesia versus voluntary). Many do not control their population for fear of the difficulty and accidents during catching, fear of the results (ostrich politics as the consequence of positive animals can be hard on an institution), or fear of a possible fatal outcome from anesthesia, as has happened in many places. Recently California sea lions (*Zalophus californianus*) and harbor seal (*Phoca vitulina*) have tested positive and *Mycobacterium pinnipedii* has been cultured for the first time in a wild bottlenose dolphin (*Tursiops truncatus*). Veterinarians involved with Mycobacterium cases have met during the EAZA meeting in Copenhagen in September to work on some recommendations and all agree on the importance of medical training and access to animals for the control of the captive population.

Lacave, G., Maillot, A., Alerte, V., Boschioli, ML. & Lecu, A. (2009). Atypical case of *Mycobacterium pinnipedii* in a Patagonian sea lion (*Otaria flavescens*) and Tuberculosis cases history review in captive pinnipeds. *Proceedings of the International Association for Aquatic Animal Medicine*, 40, 155-156.