



VETERINARY REPORT ON THE HEALTH SITUATION OF THE ORCA MORGAN SINCE HER ARRIVAL TO LORO PARQUE

Since her arrival to Loro Parque at the end of November 2011, Morgan joined our group of orcas in the routine of veterinary care. Training to perform procedures such as voluntary blood sampling or voluntary ultrasounds was easy and relatively quick. As part of the medical routine with our group of orcas, a veterinarian visits Orca Ocean at least once a day to make sure everything is OK, to review any ongoing medical or nutritional treatment, and to solve any question the trainers may have about the health of the group of orcas. Communication between the Veterinary Department and trainers is smooth and constant.

Medical training is performed occasionally with the presence of veterinarians in order to have Morgan used to them. Morgan was trained in the Netherlands and training has continued here with a very good progression. Morgan allows us to take blood samples, do ultrasounds, examine her teeth, etc. All orcas have a complete blood analysis at least once a month, with more than 50 parameters determined (such as white blood cell count, liver functionality, etc.). All results from Morgan have not shown any sign of disease. Female orcas from Loro Parque also receive a regular ultrasound exam as part of the health monitoring.

The Veterinary Department of Loro Parque has the help of two other veterinarians with a vast experience in orca medicine: Chris Dold (SeaWorld, USA) and Geraldine Lacave (Marine Mammal Veterinary Services, Belgium). We keep daily email communication, a conference call every two weeks and they visit Loro Parque between 3 and 6 times a year. During the first week of Morgan at Loro Parque we also had the visit of Niels van Elk, the veterinarian from Hardewijk, who followed the case of Morgan since she was rescued from the sea.

During the last 11 months the Veterinary Department has treated Morgan only once: she developed a focal lesion on the tongue, compatible with candidiasis, which resolved after treatment. Morgan has also sustained very occasionally scratches on her skin, produced by contact with areas of the pool or produced by other animals. None of these skin scratches needed any treatment. Tooth marking are normal in groups of orcas, both in the wild and in captivity, and serve the purpose of settling hierarchy. Morgan has received and has produced these markings. In the vast majority of cases, these wounds are minor and do not require any treatment, especially when the water is cleaned and disinfected.

El "must" de Canarias
LORO PARQUE



None of our orcas have any eye problem and, in fact, Loro Parque is one of the facilities in Europe with less eye problems in marine mammals. This is due to appropriate areas of shade in all facilities (orcas, dolphins and sea lions), appropriate medical care and extremely clean saltwater. Our water is taken from the sea and goes through 12 different sand filters, and finally is disinfected using ozone and chlorine. The fact that our orca pools are quite deep also helps reducing the amount of sunlight over our animals.

The water is analyzed 7 days a week. Ozone and chlorine are measured on site one and six times a day, respectively. Apart from that, in our specialized laboratory at Loro Parque, we do a complete chemical analysis of the water 3 times a week: ammonium, nitrite, nitrate, aluminum, free chlorine, total chlorine, pH, redox, turbidity, conductivity and salinity. In addition, 2 days a week we measure free chlorine, total chlorine, pH, turbidity, and redox. Two days a week we do a bacteriological analysis for total coliforms and *E.coli*. Our analyses include more parameters and frequency of testing than other zoos. We should remember that the European legislation for drinking water dictates a complete testing every 60 days, so we are by far improving the mandatory requests.. Overall, the health status of Morgan is considered good, with no significant problems produced over the last 11 months, and with no current organic or behavioral problems.

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