LABOKLIN
LABOR FÜR KLINISCHE DIAGNOSTIK GMBH & CO.KG

Avian DNA testing

Avian Sexing by DNA

The DNA technique of sexing offered by LABOKLIN is extremely accurate and is applicable to a wide range of common species. At the moment we can sex more than 500 different species. Please ask for our newest update of bird species or visit our website (www.laboklin.de). The technique is based on the Polymerase chain reaction (PCR) and an additional digestion of the PCR product by two different restriction enzymes.

Psittacine Beak and Feather Disease (PBFD)

PBFD is caused by a circovirus which kills the cells of feathers and the beak. It is a naturally occurring infection in Australian cockatoos but it is found in all types of parrots as well as lovebirds, cockatiels, budgies and parakeets. African greys are particularly badly affected. PBFD is a dreadful disease which normally results in the death of affected birds and the decimation of young birds in infected collections. Chronically affected birds become immunosuppressed and may succumb to other diseases due to their depressed immune system. A positive result from a bird with no feather problems may mean either that the bird is a carrier or that it has been recently exposed to the virus. In these cases we recommend isolating the bird and re-testing in about 90 days. We also recommend that the second sample is collected by venipuncture to ensure that contamination does not occur. The majority of birds which are merely exposed will mount an immune response and eliminate the infection. Those still positive at the second test should be considered as carriers. One day they are likely to show the disease, and be potentially infectious.

Avian Polyoma

Avian Polyoma (also known as Budgerigar Fledgling Disease) is most prevalent in macaws, conures, Eclectus parrots, Ring-necked parrots, lovebirds, cockatiels and budgies although it occurs in all psittacine species. It is most commonly recognised in chicks in the nest. Swollen bellies, tremors, weak wobbly chicks, or abnormal feathers may be seen. Larger psittacine species may live longer and show diarrhoea or regurgitation. Classical infections seem to affect larger species at around 7 weeks on age and can kill within a few hours of the first signs with chicks showing large bruise-like haemorrhages under the skin. Adult birds are also affected. Signs resemble those of septicaemia and hepatitis. Embryonic death or decreased hatchability can also be caused by Polyomavirus. Polyoma is transmitted primarily bird to bird but it is also thought to be transmitted via the egg.

Sample material: 1-2 freshly plucked feathers from the birds chest or tail (no discarded feathers or downs) or 1-2 drops of EDTA whole blood should be sent. For Polyoma testing you can also send post mortem material or cloacal swab.

Chlamydophila psittaci (formerly Chlamydia psittaci)

Chlamydophila psittaci infections in exotic birds represent a very common clinical problem. Signs range from acute devastating disease to poor feathering. Chlamydophila psittaci may manifest itself as an upper respiratory infection with nasal, and or ocular discharge, diarrhoea, or a combination of all. In young birds clinical sings can include rough plumage, low body temperature, tremor, lethargy, conjunctivitis, dyspnea, emaciation, sinusitis, yellow to greenish droppings or greyish watery droppings may also be displayed. Adult birds may develop symptoms such as tremors, lethargy, ruffled feathers, progressive weight loss, greenish diarrhoea, occasional conjunctivitis, and high levels of urates in droppings. Birds infected with Chlamydiaphila psittaci may develop one or several of these symptoms as the disease progresses.

In some cases, birds may be infected but show no signs. These cases are of concern because these birds may become carriers and shed the organism. A major concern with Chlamydophila psittaci is the zoonotic potential of the organism. Chlamydophila psittaci is related to Chlamydia trachomatis, the most common human STD, and Chlamydophila pneumonia, a cause of human pneumonia.

Incubation periods in caged birds vary from days to weeks and longer. Most commonly this period is approximately 3 to 10 days. Latent infections are common and active disease may occur several years after exposure. The incubation period of this disease is however difficult to assess due to these chronically infected birds that develop persistent, asymptomatic infections.

Sample material: Cloacal swab (no transport medium) or a faeces sample submitted in a sterile container or 1-2 drops of EDTA whole blood should be sent. Post mortem material or samples of liver, spleen, or kidney tissue in a sterile container may also be submitted.