Saving a charismatic bird

The northern bald ibis is on the brink of extinction. Less than two hundred birds remain in the wild. Scientists are doing their utmost to protect these last survivors. Breeding programmes and international conservation have proven quite successful.

On the inaccessible cliffs of Souss-Massa National Park in Morocco breeds a mystic bird, legendary and extremely rare, and, as some might argue, strikingly ugly. With its naked, wrinkled and reddish face and a crest of long feathers on the back of its head, the northern bald ibis has always fascinated man, probably because of its weird appearance and the metallic green and purple gloss on its black feathers. The scientific name *Geronticus eremita* refers to its resemblance to an old man, bald and wrinkled, and to the fact that, like a hermit, it prefers remote places.

The northern bald ibis, belonging to the bird family that also includes storks and spoonbills, was once widespread across northern Africa, the Middle East and even the Alps. Over the past few centuries the species has undergone a dramatic decline and is now listed as critically endangered. Populations in Europe and the Middle East went extinct, and by 1997 worldwide numbers had fallen to fewer than 50 pairs.

Remarkably, northern bald ibises reproduce well in captivity. Although in the 1940s the first captive birds died soon after arrival, the next imports in the late 1950s survived and became the founders of the present zoo population. Presently it includes around 1000 captive birds in Europe, North America and Japan. “Ironically for the species, there are now more individuals in zoos than in the wild”, says Christiane Böhm, a biologist at the Austrian Alpenzoo in Innsbruck, one of the largest breeding stations. “Fortunately the wild population of bald ibis is now doing slightly better”, she adds. “Thanks to intense conservation efforts, the Moroccan colony has increased to around 85 pairs.”

Discovery of a hidden colony

“The main threat to the birds is human disturbance and hunting”, Böhm explains. “Habitat loss and pesticide poisoning have also taken their toll.” In Europe, however, the species disappeared as early as the 15th or 16th century. “No-one knows exactly why that happened,” she continues. “Written sources are rare and vague, but it is likely that in addition to hunting pressure, changes in climate played a role.” Religious traditions caused one Turkish colony to survive long after the species had disappeared from the rest of Europe. According to local legend, the ibis was one of the first birds that Noah released from the Ark. People believed that the bird migrated each year to guide pilgrims travelling to Mecca. The ibis was protected by its status, and a festival was held each year to celebrate its return.

“Today there is still a semi-wild population in Turkey”, says Böhm. “The birds fly freely during the breeding season. They breed outside the cages, and feed along the Euphrates river. However, these birds do not migrate. In winter they are kept in cages and receive supplementary food.” This breeding station was established in 1977 when only 34

wild birds returned from the wintering grounds. The number of returning birds declined gradually and in 1990 only one bird returned - the last representative of this wild colony.

In 2002, scientists made a surprising discovery in the desert of central Syria. “The eastern population was thought to have gone extinct”, says Böhm, “but scientists found three breeding pairs, incubating eggs, and a seventh adult.” Since the 1990s there had been sporadic sightings of northern bald ibises in Saudi Arabia and Eritrea, suggesting that a breeding population still existed somewhere in the region. “The discovery of this colony might mean that there are other hidden colonies”, she notes.

Protection across borders

Böhm is an active member of the International Advisory Group on the Northern Bald Ibis (IAGNBI). This group aims to promote international cooperation on the conservation of the northern bald ibis, both in captivity and in the wild. International cooperation is needed since the wild birds do not stay within country borders: they migrate between breeding and wintering grounds. Conservation in one country is useless if threats in another country remain. To protect migratory waterbirds internationally, a treaty was established in 1995: the African Eurasian Waterbird Agreement (AEWA). Currently 48 countries, ranging from Sweden, Lithuania and Uzbekistan to Senegal, South Africa and Mauritius, have signed the Agreement. Through international regulations, monitoring, coordination and concrete projects, AEWA forms a framework for waterbird protection in the African-Eurasian flyway.

“Together with AEWA, IAGNBI is now working on a so-called Action Plan for the species”, says Böhm. “This Action Plan lists concrete conservation priorities, such as safeguarding the existing breeding sites, surveying areas for possible remnant colonies, and monitoring the migration of the northern bald ibis.” In Morocco monitoring is done by fitting adult birds with radio transmitters, which allows scientists to track their movements in detail. “Such information is immensely important”, Böhm notes. “At present we know very little of the species’ ecology, and baseline information is needed to develop effective protection strategies.” IAGNBI organised an international workshop in 2003, co-sponsored by AEWA, where people involved with northern bald ibises gathered to exchange experiences.

Learning to migrate

One remarkable project coordinated by IAGNBI is the reintroduction into the wild of captive-bred birds. There is just one problem with reintroduction: captive birds have never learned to migrate. With a diet that consists mainly of insects and small reptiles, northern bald ibises need to move southward in winter in order to find enough food. “A team of biologists in Austria is now trying to teach the birds to migrate,” tells Böhm. “They train young birds to follow micro-light airplanes, and show them the way across the Alps to warmer valleys in Tuscany.” Böhm remains moderately enthusiastic about these efforts. “We don’t really know why the European population went extinct. It might not have been because of human factors. It might be better to focus our attention on the existing populations in Morocco and Syria. Nevertheless it is very useful to gain experiences with establishing a self-sustaining and free-flying population in the wild. This provides necessary information on possible reintroductions elsewhere.”

Reintroductions have the goal of creating additional wild populations, not supplementing existing ones. This would entail a risk for the fragile wild populations, which might be susceptible to diseases carried by captive-bred individuals. “A detailed and tested release method for a migratory population has not yet been identified”, says Böhm. “We need to be extremely cautious, especially in areas close to wild colonies.” In addition, she adds, there is no immediate urgency for reintroduction. Thanks to intense conservation and coordination efforts, the species seems to be slowly on its way back from the brink of extinction.

By Nienke Beintema, AEWA Secretariat