

Arabian oryx re-introduction in 'Uruq bani Ma'arid, Saudi Arabia: update with emphasis on mortality

For the seventh consecutive year, Arabian oryx (*Oryx leucoryx*) have been translocated from the captive breeding unit at the National Wildlife Research Center (NWRC) in Taif, into the 'Uruq Bani Ma'arid protected area. This reserve lies at the south-western edge of the Rub' al-Khali desert, and is one of the driest regions in the world. By December 2000, the reserve supported an estimated population of 210 Arabian oryx (*Re-introduction News*, No 20). Because of good forage conditions, we carried on the oryx re-introduction project in 2002.

Translocation

We translocated 10 (3 males:7 females) oryx to the reserve on 28th May 2002. We formed two groups (five and four oryx) on 28th April:

- ◆ The first group was composed of one male (23 month-old) and three females (21, 17 and 17 month-old).
- ◆ The second group was composed of one male and four females (all 23 months-old).

Females were assembled since birth time whereas males only joined them ten days before the start of boma-training. This period allows reducing the stress of transportation (*Re-introduction News*, No 10). From 9th May, oryx were daily and progressively familiarized with being pushed through corridors, restrained in a narrow crate, and transported on the road. On 26th May, we caught them by hand, fixed radio-collars and administered booster vaccinations against rinderpest and foot and mouth disease. To reduce the risk of injury during translocation, we fitted their horns with rubber pipes. We transported them to 'Uruq Bani Ma'arid in mass crates on 28th May. We also transported one older male (42 months old) in an individual crate. It was not boma-trained but was administered a long acting tranquilizer (100mg; perphenazine enanthate) two days prior to transportation.

The approximately 650 km trip took about eight hours. As in the past, animals were transported by road from the NWRC to Taif Airforce base (about 50 km), then by air to Wadi Dawasir civil airport, and then again by road to 'Uruq Bani Ma'arid (about 200 km) where they were released in the holding pre-release pen. Oryx recovered well from transportation and were moved into the well-vegetated pre-release enclosures two days after their arrival. During this acclimatization period, water and dry hay were provided *ad libitum*. Animals were released into the wild on 5th and 19th July. Once outside, we offered them supplementary food (never used) and water (occasionally drunk) for one month. For the first time we attempted re-introductions during summer, because range condition was good following April 2002 heavy rains and all animals survived the summer period. In September, all animals were deemed to be in medium to good body condition (see photo 1). Although they were periodically observed with wild-born animals, they spent most of the time as an isolated cohesive herd.

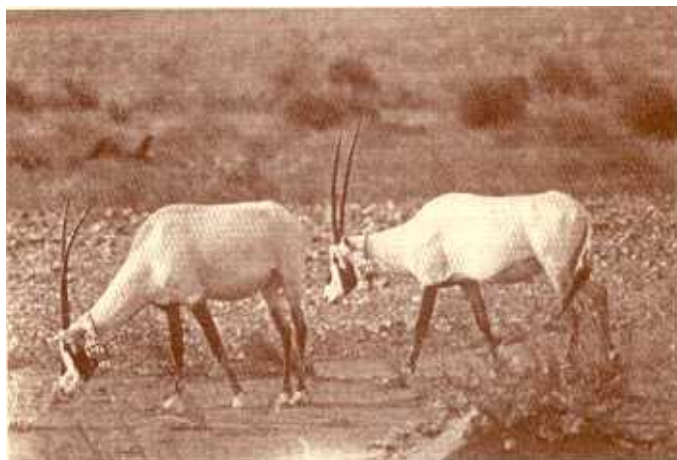


Photo 1. Two of the newly re-introduced Arabian oryx (one male, one female) deemed to be in medium body condition in late August 2002 ('Uruq Bani Ma'arid - Saudi Arabia).

Since 1995, when the first releases took place into the 'Uruq Bani Ma'arid protected area, 149 oryx (70 males:79 females) have been translocated without any deaths linked to transportation. One hundred and forty one originated from the NWRC captive breeding while eight came from the Mahazat as-Sayd protected area. Age of the translocated animals ranged between three months and six years at the time of arrival.

Causes of mortality

Mortalities among re-introduced and wild-born animals have been recorded in the reserve since the first releases. Deaths among wild-born oryx are less documented because carcasses are rarely retrieved. Until August 2002, we estimated that 28% of the translocated animals died since 1995, and 13% have an unknown fate. Causes of death could not be determined in 29% of the recovered carcasses. The main cause of death was related to range condition (63% of known death). The lack of rainfall between 1997 and 2000 on the protected area explained this rate. Due to non adaptation to this harsh conditions, nearly 70% of the cohort released in late 2000 (*Re-introduction News*, No 20) did not survive beyond the first year of re-introduction. Intra-specific competition (fight between males) was probably responsible for 20% of the known deaths, and mainly occurred before 1998.

The first poaching event was noticed in September 1998. By August 2002, four captive-born and six wild-born oryx died of poaching, accounting for 13% of total known deaths among captive-born. When including wild-born oryx, 25% of total known deaths were linked to poaching. Since it resumed, poaching represented 30 % of total known deaths.

Conclusion

In August 2002, we estimated the oryx population size

between 160 and 200 individuals. Despite the re-introduction of 10 oryx in July 2002 and the calving of about 20 animals, results of population monitoring suggest a stagnation or even a decrease of the Arabian oryx population between July 2001 and August 2002. Such tendency had never been noticed since the beginning of the re-introduction program in 'Uruq Bani Ma'arid. Missing animals are mainly wild-born. Although missing oryx might have emigrated from the protected area, undiscovered poaching cases could not be excluded. We consider poaching to be the most threatening factor to the 'Uruq Bani Ma'arid Arabian oryx population re-establishment.

Preventing or at least reducing poaching has become a major concern to the National Commission for Wildlife Conservation and Development (NCWCD). A meeting between NCWCD, NWRC staff and His Royal Highness Prince Saud Al Faisal (NCWCD Managing Director) was held in late August 2002. Recommendations concerning general surveillance of the protected area, rangers' duties, and implications of local authorities were made.

Contributed by Pascal Mésochina, Eric Bedin and Stéphane Ostrowski, National Wildlife Research Center, P.O. Box 1086, Taif, Saudi Arabia, e-mail: Mesochina@nwrc-sa.org