

Satellite tracking of a rehabilitated Greater Spotted Eagle *Aquila clanga*

Jackie Strick, Paul Vercammen, Jacky Judas, Olivier Combreau

Abstract. A Greater Spotted Eagle *Aquila clanga* was rehabilitated and released in the UAE. The bird was fitted with a solar-powered satellite transmitter and successfully tracked from the Arabian Peninsula over Iran to Kazakhstan and back to Pakistan.

Key words. Greater Spotted Eagle, *Aquila clanga*, solar-powered satellite tracking.

Over the past ten years, several migratory raptors and owls have been rehabilitated at the Breeding Centre for Endangered Arabian Wildlife (BCEAW), Sharjah, UAE. Some of these birds were beyond salvation and were euthanized, whereas others recovered and were released. The species received to date include Greater Spotted Eagle *Aquila clanga*, Eastern Imperial Eagle *A. heliaca*, Steppe Eagle *A. nipalensis*, Osprey *Pandion haliaetus*, Bonelli's Eagle *Hieraetus fasciatus*, Honey Buzzard *Pernis apivorus*, Long-legged Buzzard *Buteo rufinus*, Barn Owl *Tyto alba* and Eagle Owl *Bubo bubo ascalaphus* or *B. desertorum*, Red-footed Falcon *Falco vespertinus*, Sooty Falcon *Falco concolor* and Lesser Kestrel *Falco naumanni*. All birds were ringed before release, but as no ring returns have been received so far, the fate of these birds remains unknown. This note reports on the results of the first attempt to track the post-release movements of a single Greater Spotted Eagle rehabilitated at BCEAW.

Greater Spotted Eagles inhabit open wet forests, wooded marshes and riverine habitats. They have a fragmented breeding distribution extending from Finland to Eastern Siberia, Mongolia and China. On passage and in winter they occur extensively across central and eastern Europe, north and east Africa, the Middle East, Arabian Peninsula, the Indian sub-continent and South-east Asia (BIRDLIFE INTERNATIONAL 2010).

Within the region, this species is known as a scarce migrant to the Near East and south-west Arabia (PORTER et al. 1998). They are known to visit coastal wetlands in the UAE but the Conservation Workshop for Large Raptors, held at BCEAW in 2005, revealed that there was no information on the origin, flyways or destination of large raptors migrating through the Arabian Peninsula (EPAA 2005). In the past, there had been only one attempt to track a bird from the eastern population, when an adult bird was caught in October 1993 and followed for 228 days from north of Taif in south-west Saudi Arabia to a point just to the north-west of Omsk in Siberia, a total distance of 5,526 km (MEYBURG et al. 1995).

On 28 October 2008, a Greater Spotted Eagle was brought into BCEAW after being found exhausted in a water trough in Dibba, on the UAE's East Coast. On examination the eagle was found to be healthy with no signs of physical injury. Based on the weight of 2,170 g we assumed the bird was a female. A few hours after arrival, she ate well and as soon as she had

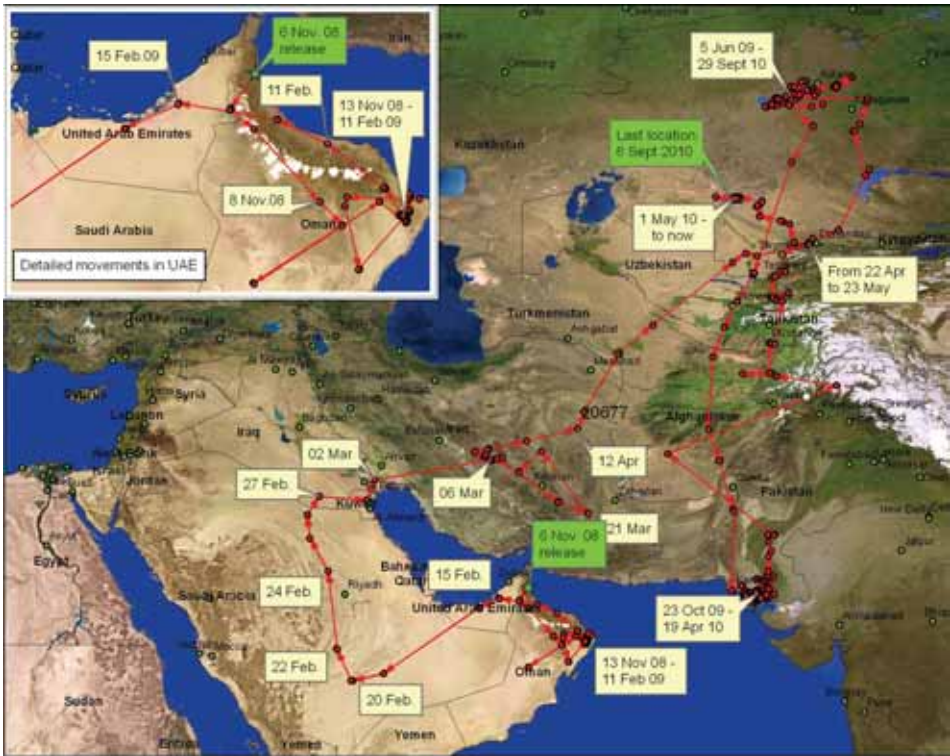


Fig. 1. Movements of a Greater Spotted Eagle *Aquila clanga* rehabilitated at the Breeding Centre for Endangered Arabian Wildlife, Sharjah (updated on 15 September 2010).

regained her strength she was prepared for release. In collaboration with colleagues at the National Avian Research Centre (NARC) and the International Fund for Houbara Conservation (IFHC) in Sweihan, Abu Dhabi, a 30 g solar-powered satellite transmitter was fitted to the eagle. The satellite transmitter was a PTT-100 Solar Argos/GPS transmitter manufactured by Microwave Telemetry Inc. from Columbia, MD 21045, USA. On 6 November 2008 the eagle was taken to the Malaiha road towards Kalba and released in the Hajar Mountains ($26^{\circ}59'12.76\text{N}$, $56^{\circ}17'48.7\text{E}$). The first tracking results were received two days after release and showed that she had flown over the mountains into Oman. She subsequently flew for two days into the Empty Quarter in Saudi Arabia before returning to Oman.

She spent a month in Oman foraging around a rubbish dump before flying back to the UAE, following the coast up to Kuwait on 28 February 2009. She then made another ten-day foray into Saudi Arabia, before spending almost a month in central Iran. Finally she flew across Turkmenistan and Uzbekistan into Kazakhstan where she spent the summer, from 5 June until 29 September 2009, near Lake Tengiz to the south-west of Astana. She then flew south into Pakistan and approximately one month later, on 23 October 2009, reached her wintering grounds, east of Karachi in the Indus delta (Fig. 1).



Fig. 2. Greater Spotted Eagle *Aquila clanga* with solar-powered satellite transmitter. Photograph: Björn JORDAN, Breeding Centre for Endangered Arabian Wildlife (BCEAW).

She remained in this region until 19 April 2010, before moving north into Afghanistan, Tajikistan, and into central Kazakhstan by 6 September 2010. Results to date suggest that rehabilitation of an exhausted migratory raptor can result in the resumption of apparently normal behaviour, and that satellite tracking is an effective way of providing information on movements of migrating raptors.

References

- BIRDLIFE INTERNATIONAL (2010): Species factsheet: *Aquila clanga*. – www.birdlife.org. Downloaded on 7.10.2010.
- ENVIRONMENT AND PROTECTED AREAS AUTHORITY (2005): Sixth International Conservation Workshop for the Fauna of Arabia: Final Report. – EPAA, Sharjah, UAE.
- MEYBURG, B-U., X. EICHAKER, C. MEYBURG, & P. PAILLAT (1995): Migrations of an adult Spotted Eagle tracked by satellite. – *British Birds* 88: 357-361
- PORTER, R. F., S. CHRISTENSEN & P. SCHIERMACKER-HANSEN (1996): *Birds of the Middle East*. – London, Christopher Helm.

Authors' addresses: Jackie Strick & Paul Vercammen, Breeding Centre for Endangered Arabian Wildlife, Po Box 29922, Sharjah, United Arab Emirates. – Jacky Judas, National Avian Research Centre, Po Box 45553, Abu Dhabi, UAE. – Olivier Combreau, International Fund for Houbara Conservation, Po Box 45553, Abu Dhabi, UAE. – Email: breeding@epaa-shj.gov.ae.