



O. COUPPEY

Save the Houbara . . .

Houbara's normal clutch size is 3-4 and only 1-2 chicks survive

Text: **M. Zafar-ul Islam & Ahmed Boug**



M. Zafar-ul Islam (L) is Research Coordinator with NWRC, Saudi Arabia, dealing with re-introductions of Houbara and other species. Ahmed Boug (R) is General Director of NWRC and a field biologist who has studied Hamadras Baboon.

Come winter, and birders in most parts of India are waiting to welcome the avian visitors that arrive to the Subcontinent in large numbers. The winter migrants join the existing avian diversity to create a magic that is difficult to express in words. One such winter migrant is the Asian Houbara Bustard *Chlamydotis macqueeni*. This visitor prefers to migrate to the dry and semiarid areas in north-west India mainly in the Thar Desert, Kutch, and parts of Saurashtra like Jamnagar and Little Rann of Kutch, from November to mid-March.

The Houbara bustard is a rare bird globally. A very rough estimate of this bird's wintering population is considered to be anything between 2,000 and 5,000. The populations of all the subspecies of Houbara bustards have been declining due to habitat

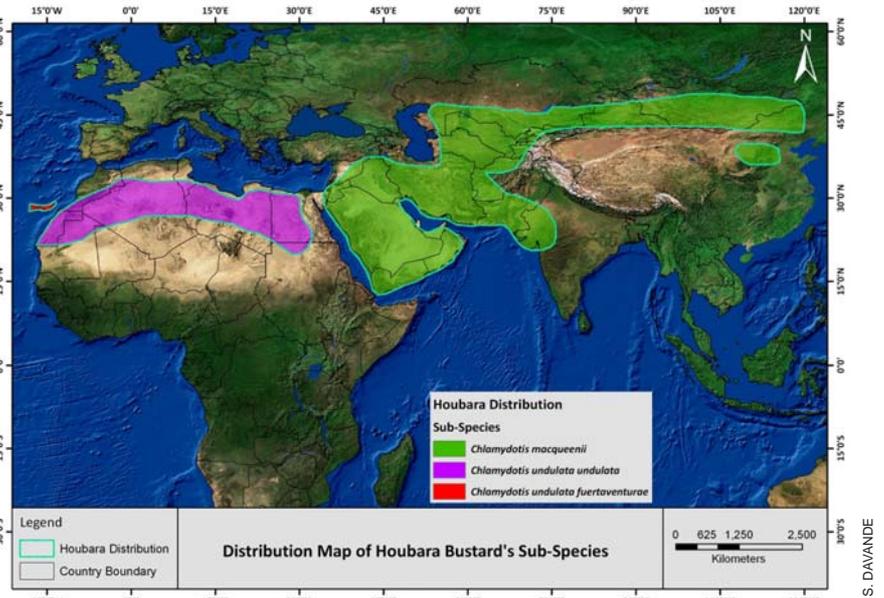
loss and degradation, as desert areas are developed for agriculture and infrastructure projects. This decline maybe due to habitat loss, fragmentation compounded by high hunting pressure from falconers, seen today even in the breeding areas in the Central Asia. It was, thus, classified as Vulnerable by IUCN in 1994 and 2005. In India too, they are opportunistically hunted by local poachers. But large-scale hunting by falconers, as seen in Pakistan, fortunately does not occur here. It is but a need of the hour, to draw our attention to the realities and conservation issues faced by the Houbara bustard.

Several studies have been undertaken on these birds all over the world. In India, between 1994 and 1998, Dr. Asad R. Rahmani, Director, BNHS, and a team of researchers that included the first author,

conducted detailed surveys and found the bustard in eleven districts of Rajasthan, with the major concentration in the Bikaner, Jodhpur, Barmer and Jaisalmer districts. In Rajasthan, of thirty-eight sites censused, its population was confirmed from thirty-four sites. But, as per local information, illegal hunting was occurring then and may still occur in at least eleven of these sites. In India, the Houbara Bustard is protected under the Wildlife Protection Act (1972) and classified under Schedule I, Part III. Even though the actual census figures of this bird are not available, there is a perceived notion, as per individual observations that its population is declining in India.

It is interesting to know that for hundreds of years, falconry and the hunting of Houbara Bustard were deeply embedded in the Arabian culture and traditions. It is said that when Houbara used to inhabit the Arabian region in large numbers, migrating from Central Asia, falconers used to hunt them on the camel back. Since the advent of four wheelers, it became easier for people to chase and hunt this bustard even on sand dunes. But, these days they are not hunted for food but for sport, as the hunters consider this as a challenge. They are not only illegally trapped, but also supplied for falcon training.

To know more about the conservation issues faced by the Houbara bustard, it becomes imperative to learn briefly about its subspecies and their distribution. There are three subspecies of Houbara bustard - *Chlamydotis undulata undulate* (about 10,000 individuals) resident of North Africa, where its population is known to have declined from Libya, Egypt and Tunisia, and probably also in Algeria, Mauritania, Morocco and Sudan; *Chlamydotis undulata fuertaventurae* (700 - 750 birds) on the Canary Islands, Spain; *Chlamydotis macqueenii*, also called Macqueen's Bustard. According to



The Houbara bustard is protected in India, under the Wildlife Protection Act, 1972

BirdLife International, the last subspecies occupy six subregions: resident and migratory birds occur in parts of Middle East and in Russia, Iran, Pakistan, India, Afghanistan, Uzbekistan, Tajikistan, from western Kazakhstan to Turkmenistan, and on the Mongolian plateau and in the Gobi desert of Mongolia, and in western China. The population of Macqueen's Bustard is estimated between 39,000 and 52,000 individuals, mostly breeding in

Kazakhstan (30,000 - 40,000) although numbers in the mainland China are likely to be much higher than the current estimate of 500 birds. A major decline is reported from countries such as Saudi Arabia, UAE, Bahrain, Jordan, Yemen, Kazakhstan, Iran, Iraq, Pakistan, India and China. Populations from some subregions are thought to mix on the wintering grounds.

But, where can one find the Houbara bustard? They are adapted to desert



Houbara prefers moderate or sparse perennials, primarily holophytes, grasses, herbs and shrubs

Save the Houbara



A Houbara bustard fitted with a radio-transmitter

environments, preferentially inhabiting undulating, flat arid plains, steppe habitats and semi-deserts, often with little cover, except for open or scattered desert shrubs. The bustard is known to avoid rugged terrain, sandy deserts and barren salt pans. The wintering population of Houbara bustard in India inhabits sandy and stony semi-desert and are specialized to exist in arid conditions where trees are absent and both shrub cover and herb layer are sparse.

The houbara is omnivorous and opportunistic, as its diet reflects local and seasonal abundance of various plants and

small animals. It feeds on vegetable matter including fruits, seeds, shoots, leaves, flowers and young shoots, drupes, and berries growing over leaves. It is also known to feed on, cultivated plants such as beans, peas, alfalfa and mustard, if available. Besides a vegetarian diet, it also feeds on invertebrates such as grasshoppers, weevils, termites, locusts, beetles, caterpillars, scorpions, spiders and ants, snails and also on small vertebrates such as snakes, lizards and geckos. Bustard chicks generally feed on insects and small reptiles.

In 1996, the Species Survival Commission of IUCN organized a

meeting in Muscat, Oman to formulate conservation management of the species in Asia and Middle East, which was attended by 90 participants from 13 range states: Afghanistan, Bahrain, India, Iran, Jordan, Kazakhstan, Kuwait, Oman, Pakistan, Saudi Arabia, United Arab Emirates, Uzbekistan and Yemen. This meeting brought out some very important recommendations that included improvement in protection measures, further research on migration and assisting Saudi Arabia to conclude an international management agreement under the Bonn Convention. In 1997, National Avifauna Research Centre, Abu Dhabi in United Arab Emirates (UAE) fitted satellite transmitters on Houbara to study the migratory routes. They found that the Houbara migrated to northern China, covering 6,600 km in just 54 days and crossed Iran, Turkmenistan, Uzbekistan and Kazakhstan to Chinese province of Xinjiang and eight months later it followed the same route and returned to Abu Dhabi. India is trying to save the species by protecting its habitat mostly in the Desert National Park and community reserves. Launching education and awareness programme to motivate the local people for the protection of this bird is required. Field staff should also be supported by giving them infrastructural support like wireless sets, firearms, and vehicles. However, as the species is hunted in a large scale in the adjoining country the wintering Houbara population in India will always be vulnerable as it moves through Pakistan during migration. The bird should be given complete protection in its entire range, starting from the breeding ground, staging areas, migratory routes and wintering places.

Captive-breeding and reintroduction programmes

As hunting pressure in the Middle East is very high and the populations

of Houbara have sharply declined, captive breeding and reintroduction programme was the one of the solutions to bring back the bird from local extinction.

The captive-breeding programme of Houbara bustard was started in Saudi Arabia in 1986 to undertake the restoration programme. From 1986 to 1988 fertile eggs were collected under the Government permit from resident populations in the Baluchistan in Pakistan. By 1990s, through the application of artificial insemination techniques the National Wildlife Research Centre (NWRC) was able to produce enough Houbara chicks to replace for release purpose. Two sites were selected for houbara reintroduction, i.e., Mahazat as-Sayd and Saja Umm Ar-Rimth both protected areas in central Saudi Arabia, keeping in



Houbara bustards are omnivorous, feeding on seeds, insect and small creatures

mind the IUCN resolutions on reintroduction.

Re-introduction methods

All the houbara were fitted with the radio-transmitter. The transmitter attaches to the bird as a backpack using various harness material such as Teflon

ribbon. The harness is looped under the wings and then around the base of the neck known as “belly cinch”. We have been releasing houbara in Mahazat as-Sayd and Saja Umm Ar-Rimth protected areas using technique of ‘Captive bred juvenile of 4-6 months translocated to long tunnel shaped cages and after three to four weeks release them in the enclosure.’

Status of re-introduced houbara

Between 1991 and 2010 a total of 856 (424 males:432 females) houbara have been released to Mahazatas-Sayd Protected Area, and from 2004 to 2010, a total of 194 houbara were released in the core fenced area of Saja / Umm Ar-Rimth Protected Area. These birds are equipped with radio-transmitters and are regularly monitored by vehicles on ground and by small aircraft to collect information on its ecology including feeding behaviour and breeding biology.

If hunting continues, houbara populations may eventually collapse over most of the range of the species, reaching levels, such that recovery would be difficult. Such a decline would certainly mean houbara would no longer be able to be harvested by falconry, and this ancient Arab tradition would die. If the disappearance of houbara from many countries is to be avoided, then conservation action must be taken immediately to ensure the protection of habitats within the houbara’s range, and to reduce the loss of animals from hunting. 🦅

CONSERVATION CHALLENGES FOR HOUBARA CONSERVATION

In India, houbara should be monitored on an annual basis to know the wintering population trend and their distributions, density, and habitat/area left for the bird. However, we need to carry out studies on the migration of this bird, especially the Indian wintering population using satellite transmitters (PTTs), which would be helpful in global houbara conservation strategy and action plan. Other challenges are:

- Need to support national and international legislations concerning the houbara for long-term conservation.
- Falconers/hunters should also participate in the conservation programmes
- Houbara range countries should exchange information regularly using the IUCN Bustard Specialist Group (BSG).
- All the breeding sites should be strictly protected.
- Large-scale habitat conservation programmes are among the most promising steps for houbara conservation, particularly if hunting is prohibited or strictly controlled in such areas.
- Conservation awareness programmes should be continued in houbara range countries.

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