

CONSERVATION UPDATE

Baer's Pochard *Aythya baeri*: breeding in central Yangtze region, China

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The Critically Endangered Baer's Pochard *Aythya baeri* has long been thought to breed entirely within south-east Russia and north-east China (Gao *et al.* 1992), in the Amur-Heilongjiang region (Callaghan 2004). In China, this range encompasses Heilongjiang, Jilin, Liaoning, Inner Mongolia, Hebei and Beijing. Recently, however, a few pairs have also been located during the breeding season at sites south of the breeding range described above, in Hubei, Shandong and Henan provinces (Hearn *et al.* 2013).

During summer 2014, 16 Baer's Pochard were found by LQ and LS in a large area of fish and lotus *Nelumbo nucifera* ponds—covering 30–40 hectares—near Huangpi (Plate 1), between Wuhan city and Xiaogan city, Hubei province, in the central Yangtze floodplain, a region more typically frequented by wintering Baer's Pochard. The Baer's

Pochard were found on an aquaculture pond about 3 ha in area (Plate 2) which was not actively being farmed and where the water level had been lowered by some 2 m compared with adjacent ponds where fish and lotus production was on-going; the water was about 60 cm deep with 20 cm of mud. It held significantly more emergent vegetation (Plate 3 & 4) including wild Chinese Water Chestnut *Eleocharis dulcis* and other plants as well as aquatic insects, small fish, snails, mussels, crayfish and other shell fish.

A nest containing eggs thought to be those of Baer's Pochards was also found (Plate 5), and the eggs subsequently successfully hatched (Plate 6), but the identity of the adults to which the nest and young belonged was never confirmed.

In spring 2015, LQ and LS visited the aquaculture ponds again but found that the pond

Plate 1. General view of the large area of fish and lotus ponds near Huangpi, Hubei province, August 2014.



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Plate 2. A pair of Baer's Pochard *Aythya baeri* on an out-of-use aquaculture pond, Huangpi, June 2014.



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Plates 3 & 4. Typical habitat in which Baer's Pochard nested, Huangpi, summer 2014.



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Plate 5. A nest containing six eggs thought to be those of Baer's Pochard, with two starting to hatch, Huangpi, July 2014.

where the Baer's Pochard had been seen in 2014 had been cleared of vegetation and the water level raised by about 2 m to prepare it for fish production. However, an adjacent pond still held suitable habitat and the first 5–6 Baer's Pochard were seen there on 20 April and on 3 May about 30 individuals were present and a nest was found—15 birds were identified as males and 12 as females and seven or eight breeding pairs appeared to have been established—four days later, the first egg was seen in the nest. During the following month, two more nests were located, and over the whole summer a total of seven nests were found, making this one of the most important known breeding locations for the species in its entire range. The nests were built in Cyperaceae *Carex* grasses growing in small isolated clumps in the pond; other tall grasses such as *Zizania caduciflora* and *Typha* sp. grew around the nests and blocked access from the banks. The inside and outside diameters of the first nest were



Plate 6. Three ducklings successfully hatched, aquaculture pond, Huangpi, 6 July 2014.

25 and 29 cm respectively. The final clutch sizes in three nests were eight, nine and twelve eggs. When the incubating female was away from the nest, eggs that were in the early stages of incubation were weighed, to the nearest 0.1 g, using an electronic balance; the average weight of the eggs was 42.8 ± 2.2 g ($n=27$).

Two of the nests were built near nesting Whiskered Tern *Chlidonias hybrida* and the terns enhanced the detection of predators as when disturbed they took flight, making alarm calls, alerting the Baer's Pochard which then also flew away.

Cotton Pygmy-goose *Nettapus coromandelianus* and Chinese Spot-billed Duck *Anas zonorhyncha* also bred on the ponds; the Cotton Pygmy-goose, a hole-nesting species, nested in crevices on a pillar of a nearby highway bridge because there were no suitable trees or other more natural nest sites in the vicinity, whilst the Chinese Spot-billed Ducks

Plate 7. A typical crayfish trap of the type in which Baer's Pochard ducklings, an adult and other waterbirds were caught by accident in summer 2015.



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selected a variety of sites, mostly close to the pond banks. The inside and outside diameters of one Chinese Spot-billed Duck nest that was measured were 28 and 35 cm, respectively.

During their visits LQ and LS noted a number of threats to the Baer's Pochard; of greatest immediate concern was the number of birds that were caught in crayfish traps. On one visit in mid-summer they found about six Baer's Pochard ducklings (about one-third grown) and one adult in the traps (Plate 7). One duckling was dead but the other birds were released in good condition; however, without this timely intervention, all the birds would probably have died. The crayfish are taken for food, but it is not sure whether they are farmed or part of the natural aquafauna; however it is not thought the ducks were trapped deliberately. Disturbance by humans may also be a significant short-term threat as the adjacent ponds are in active use, and people also frequently visited this pond in order to set and check crayfish traps. However, the greatest threat is the loss of the site altogether. The ponds are actively managed for fish and lotus production, and no protection or management agreement is in place. LQ and LS have held some positive discussions with the tenant farmer and raised his awareness about the Baer's Pochard, but much remains to be done to secure the site for the species.

This is the first recorded breeding attempt by Baer's Pochard in the central Yangtze region, and it is believed to be the southernmost breeding site in the species's entire range; it is about 580 km south of the nearest known breeding site, in Henan province. Of additional interest is that summering Baer's Pochard have also been located at two other sites in the central Yangtze floodplain since 2014, posing the question whether this is a recent range expansion or whether the species has always bred this far south but been overlooked. The ponds at Huangpi are currently unprotected and intensive aquaculture activities are ongoing at nearby ponds. Urgent conservation actions are needed, in partnership with Hubei province forestry department, Wuhan city forestry bureau, the land-owner and the tenant farmers, in order to protect the site for Baer's Pochard; more detailed surveys and research are needed to better understand their ecological requirements.

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