Goby Gone for Good

by Gary R. Feulner

Fig 1. The Hata goby (*Awaous aeneofuscus*) *ex situ*

Fig 2. A plastic-lined dam and 'weir' in Wadi Qahfi, now neglected but recently used for fishing

An early November 2006 visit to lower Wadi Qahfi, following intermittent rain in August, September and October, failed to turn up any sightings of the so-called Hatta goby (*Awaous aeneofuscus*) in the area it was known to inhabit from at least 1997 through mid-2004 (Feulner 1998; Feulner & Cunningham 2000). This appears to confirm the author's pessimistic assessment in July 2005 that the goby is now extinct in this area (Feulner 2005), which represented by far the largest of only four goby sites known in Northern Oman in recent years. As of mid-2004, the goby was already reported to be absent from two of the other sites, one in a nearby wadi, visited by the author in May 2004 and one in a wadi south of Muscat visited in June 2004 by Prof. Michael Robinson from Sultan Qaboos University. The fourth site was in the area north-west of Sur, where the wadis debouch almost directly to the sea, across only a very narrow coastal plain (Robinson, *pers. comm.*).

As many as 78 gobies were actually counted in Wadi Qahfi in March 2000 over a several kilometre stretch of wadi, and the local population was estimated at 100-200 fish (Feulner & Cunningham 2000). The area was monitored at least annually thereafter. Sightings dwindled to only five, with four in a single pool, in May 2004. This, it appears, was not enough to survive under the circumstances.

Several factors are likely to have contributed to this result. First, the exceptional drought of 1999-2004 (see Feulner 2006) reduced the number of pools, and water levels and flow rates in the remaining pools, reducing the quantity and quality of available habitat. Second, flowing water in the comparatively 'wet' winter of 2004-2005 rearranged three of the larger pools that had held a number of bigger gobies, filling them with gravel and diminishing both their size and depth. Third, on all visits since 2000, a period when the drought period permitted the maintenance of a reasonable vehicle track in the wadi, there has been evidence that the area of the goby pools is regularly visited for fishing purposes. That evidence consists of extensive damming and channeling, as well as the construction of fish weirs and abundant litter of cut-off mineral water bottles fashioned into fish traps, like mini-*gharghour*.

The fishing activity is probably directed at the traditional quarry of the local mountain residents, the small, dark *Garra barreimiae*, a carp family member that is the most common wadi fish. But it seems inevitable that the goby population must have suffered 'collateral damage' as a result. Moreover, since the goby is somewhat larger than the other native fish, and distinctive, it may have attracted attention from local fisherman as a novelty. In addition, since notice was drawn to them in 1998, gobies have also been collected from the site in unknown numbers by institutional and private collectors.

If in fact *A. aeneofuscus* has been eliminated from Wadi Qahfi, it is especially unfortunate, since the population there was essentially an isolated one. Owing to dam construction in Wadi Hatta and the high rate of water use in the Hatta area generally, it is unlikely that Wadi Qahfi (a tributary of Wadi Hatta) will again flow to the sea. That eliminates the possibility of recruitment of new fish from the seagoing population of fry, in accordance with the normal life cycle of the species (see Feulner & Cunningham 2000).

References

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