

## Short Communication

### Birds Offered for Sale in the Langarud Market, Southwestern Caspian Sea

ABBAS ASHOORI

Department of Environment, Science & Research Unit, Islamic Azad University, Tehran, Iran

Email: [ashoori\\_abbas@yahoo.com](mailto:ashoori_abbas@yahoo.com)

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Every year the wetlands in Gilan Province in Iran are host to thousands of migratory waterbirds (Behrouzi-Rad 1990). The hunting of these birds forms an important part of Gilan's economy (Firouz 1968, Mansoori 1982).

In 1975, personnel of the Department of the Environment (DOE) conducted a major survey of the hunting of waterbirds and techniques used to catch them; they estimated the total number of birds harvested each season and made an assessment of the importance of the annual harvest in the economy of the region. The survey was conducted with the aid of questionnaires and involved many of the Department's field staff in its Gilan and Mazandaran offices. It was concluded that the total annual harvest of Anatidae and Eurasian Coot *Fulica atra* in the South Caspian region was approximately three million birds (Scott & Smart 1992).

During their survey of the size of the harvest of migratory waterbirds in Gilan Province, Balmaki *et al* (2005) estimated the number and diversity of waterbirds sold in the markets of Anzali, Rasht and Langarud in eastern Gilan from October 2001 to January 2002 and the value (in Rials) of the birds hunted; Langarud was the most important market for these birds in this region.

In the survey reported here, birds sold in Langarud market were identified throughout the autumn and winter of 2004/2005, from October to March. The study was carried out weekly on Saturdays and Wednesdays with a view to identifying the hunted birds sold. No attempt was made to estimate the number of birds sold in Langarud market on other days of the week, but since the local bazaars in Langarud are held only on Saturdays and Wednesdays, people

bring most of the birds they have hunted (legally or illegally) to the market on these two days. It is thought that more than 70% of the birds that are sold in Langarud market are sold on these two days. More birds are sold on Saturdays than on Wednesdays because hunting is permitted on Wednesdays, Thursdays and Fridays, and is not allowed on Saturdays, Sundays, Mondays and Tuesdays.

In total, 58 species belonging to 16 families and eight orders were identified. Charadriiformes (19 species), Anseriformes (13 species) and Passeriformes (11 species) were the orders with the most bird species offered for sale (Table 1). The numbers of birds offered for sale reached their highest levels in February and March. The three most abundant species, Common Teal *Anas crecca*, Mallard *Anas platyrhynchos* and Eurasian Coot *Fulica atra*, accounted for over 80% of the 26,137 birds identified during this survey. Furthermore, these same three species accounted for 252,836 of the 269,467 birds recorded by Balmaki *et al.* (2005), *i.e.* 93.8%.

In contrast to the present survey, Balmaki *et al* (2005) reported 24 species and six orders of waterbirds in the markets of Rasht, Langarud and Anzali in 2001/2002. Common Shelduck *Tadorna tadorna*, Greater Scaup *Aythya marila*, Great Cormorant *Phalacrocorax carbo* and Pygmy Cormorant *Phalacrocorax pygmeus* were included in their reports but not observed in the present survey. The main reason for the absence of the latter two species in the Langarud market was presumably because the meat of these species was regarded as undesirable and the birds were therefore not hunted in large numbers.

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**Table 1.** Numbers of hunted birds offered for sale in Langarud market from October 2004 to March 2005, in comparison with hunted birds offered for sale in the markets of Rasht, Langarud and Bandar Anzali from October 2001 to January 2002 (Balmaki *et al.* 2005).

Scientific name	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	TOTAL	Frequency (%)	Balmaki <i>et al.</i> (2005)	Frequency (%) of Balmaki <i>et al.</i> (2005)
<i>Tachybaptus ruficollis</i>	0	6	3	4	1	0	14	0,07	374	0,14
<i>Podiceps cristatus</i>	0	0	0	1	4	6	11	0,06	218	0,08
<i>Podiceps auritus</i>	0	0	0	3	2	0	5	0,03	-	-
<i>Podiceps nigricollis</i>	0	6	6	4	1	2	19	0,10	142	0,05
<i>Phalacrocorax pygmeus</i>	0	0	0	0	0	0	0	0,00	88	0,03
<i>Phalacrocorax carbo</i>	0	0	0	0	0	0	0	0,00	73	0,03
<i>Botaurus stellaris</i>	12	18	23	3	3	0	59	0,31	-	-
<i>Anser anser</i>	0	0	0	8	4	0	12	0,06	56	0,02
<i>Tadorna ferruginea</i>	0	0	2	0	0	0	2	0,01	96	0,04
<i>Tadorna tadorna</i>	0	0	0	0	0	0	0	0,00	126	0,05
<i>Anas penelope</i>	0	13	15	22	35	12	97	0,52	463	0,17
<i>Anas strepera</i>	32	57	62	64	68	40	323	1,26	2,018	0,75
<i>Anas crecca</i>	150	1006	1508	2850	2594	1090	9198	36,38	186,486	69,21
<i>Anas platyrhynchos</i>	115	1017	1725	2057	1855	1130	7899	28,32	52,542	19,50
<i>Anas acuta</i>	12	22	26	27	28	22	137	0,65	145	0,05
<i>Anas querquedula</i>	220	0	0	0	0	12	232	1,23	1,453	0,54
<i>Anas clypeata</i>	8	38	43	52	28	15	184	0,90	2,394	0,89
<i>Netta rufina</i>	0	0	0	0	6	4	10	0,05	1,162	0,43
<i>Aythya ferina</i>	15	21	31	48	52	16	183	0,75	2,225	0,83
<i>Aythya nyroca</i>	22	14	11	8	21	0	76	0,40	130	0,05
<i>Aythya fuligula</i>	0	0	10	9	24	9	52	0,28	378	0,14
<i>Aythya marila</i>	0	0	0	0	0	0	0	0,00	338	0,13
<i>Circus aeruginosus</i>	0	0	0	0	1	0	1	0,01	-	-
<i>Coturnix coturnix</i>	95	53	0	0	0	0	148	0,79	-	-
<i>Rallus aquaticus</i>	18	32	20	128	171	30	399	2,02	-	-
<i>Crex crex</i>	24	10	0	0	0	0	34	0,18	-	-
<i>Porzana parva</i>	3	0	0	0	0	0	3	0,02	-	-
<i>Porzana porzana</i>	42	24	0	0	0	0	66	0,35	-	-
<i>Porphyrio porphyrio</i>	6	0	0	0	3	4	13	0,07	319	0,12
<i>Gallinula chloropus</i>	21	38	33	145	187	62	486	1,68	614	0,23
<i>Fulica atra</i>	107	467	905	1268	1356	1005	5008	15,97	13,808	5,12
<i>Tetrax tetrax</i>	3	1	0	0	0	0	4	0,02	-	-
<i>Recurvirostra avosetta</i>	0	0	1	0	0	0	1	0,01	-	-
<i>Pluvialis apricaria</i>	0	0	9	0	0	0	9	0,05	-	-
<i>Pluvialis squatarola</i>	0	0	4	2	0	0	6	0,03	-	-
<i>Charadrius hiaticula</i>	29	8	0	0	5	2	44	0,23	-	-
<i>Charadrius alexandrinus</i>	7	0	0	0	0	2	9	0,05	-	-
<i>Vanellus vanellus</i>	0	0	14	10	11	0	35	0,19	82	0,03
<i>Vanellus leucurus</i>	0	2	0	0	0	0	2	0,01	-	-
Unidentified Charadriidae	0	0	0	0	0	0	0	0,00	906	0,34
<i>Scolopax rusticola</i>	0	38	48	59	18	0	163	0,87	-	-
<i>Gallinago gallinago</i>	40	53	40	67	81	2	283	1,51	-	-

Scientific name	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	TOTAL	Frequency (%)	Balmaki <i>et al.</i> (2005)	Frequency (%) of Balmaki <i>et al.</i> (2005)
<i>Lymnocyptes minimus</i>	2	0	11	0	0	0	13	0,07	-	
<i>Limosa limosa</i>	0	0	8	0	0	0	8	0,04	-	
<i>Tringa totanus</i>	22	4	7	2	1	0	36	0,19	-	
<i>Tringa stagnatilis</i>	20	0	0	0	0	0	20	0,11	-	
<i>Calidris minuta</i>	5	0	0	2	6	0	13	0,07	-	
<i>Calidris alpina</i>	14	0	0	21	0	0	35	0,19	-	
Unidentified Scolopacidae	0	0	0	0	0	0	0	0,00	2,035	0,76
<i>Larus cachinnans</i>	0	0	0	0	3	2	5	0,03	-	
<i>Larus ridibundus</i>	0	0	0	0	4	8	12	0,06	-	
<i>Larus minutus</i>	0	0	0	0	8	0	8	0,04	-	
Unidentified Laridae	0	0	0	0	0	0	0	0,00	796	0,30
<i>Melanocorypha calandra</i>	38	29	0	0	0	0	67	0,36	-	
<i>Alauda arvensis</i>	0	0	40	15	0	0	55	0,29	-	
<i>Erithacus rubecula</i>	0	0	13	20	24	0	57	0,30	-	
<i>Luscinia svecica</i>	0	10	0	0	0	0	10	0,05	-	
<i>Turdus merula</i>	0	0	0	34	75	0	109	0,58	-	
<i>Turdus philomelos</i>	0	0	0	0	55	0	55	0,29	-	
<i>Turdus viscivorus</i>	0	0	0	0	4	0	4	0,02	-	
<i>Fringilla coelebs</i>	0	0	0	0	43	19	62	0,33	-	
<i>Coccothraustes coccothraustes</i>	0	0	0	0	1	0	1	0,01	-	
<i>Parus major</i>	0	0	0	0	28	3	31	0,16	-	
<i>Sturnus vulgaris</i>	0	25	74	52	68	40	259	1,38	-	
<b>Total number of bird species</b>	<b>27</b>	<b>26</b>	<b>28</b>	<b>29</b>	<b>38</b>	<b>24</b>			<b>24</b>	
<b>Total number of birds</b>	<b>1082</b>	<b>3012</b>	<b>4692</b>	<b>6935</b>	<b>6879</b>	<b>3537</b>	<b>26,137</b>		<b>269,467</b>	

In the study by Biamaki *et al.* (2005), over 69% of all the birds on sale in the markets of Anzali and Rasht were Common Teal, whereas in the present study, only 36.4% of the birds sold in Langarud were of this species. The most likely explanation for this difference is that the Common Teal is much more abundant in Anzali Wetland and other wetlands in western Gilan Province than it is in the wetlands around Langarud in the east. For example, of 40,960 Common Teal recorded in Gilan Province during the Mid-winter Waterbird Census in 2004, 30,992 (75.6%) were counted in the western part of the province and only 9,968 (24.4%) in the eastern part. Similarly in the census in 2005, of 41,637 Common Teal counted in this province, 28,233 (67.8%) were in the western part and 13,404 (32.2%) in the eastern part.

Three species, Ferruginous Duck *Aythya nyroca*, Corncrake *Crex crex* and Little Bustard

*Tetrax tetrax*, that were found on sale in Langarud market during this survey are classed as Near Threatened by IUCN (2007). The occurrence of these threatened species together with such species as Red-crested Pochard *Netta rufina* and Western Marsh Harrier *Circus aeruginosus*, which are protected species in Iran, indicates a lack of wardening and control on the part of the responsible DOE personnel (Balmaki *et al.* 2005), not to mention the indifference or lack of knowledge by the people involved in regard to the heavy fines which should, in accordance with the regulations, be imposed for the shooting or capture of these species. The occurrence of Corncrake and Little Bustard in Gilan is not mentioned by Scott *et al.* (1975) or Mansoori (2001), although a single Little Bustard was reported from the Langarud market in January 2004 (Sehatisabet *et al.* 2006). These species

have, however, now been recognized as passage migrants in Gilan (A. Ashoori, unpubl. data).

As many as 59 Great Bitterns *Botaurus stellaris* were offered for sale in Langarud market. This is a rapidly declining species throughout much of its range, and is the subject of special conservation measures in many countries, e.g. in the European Union. It appears that the hunters in Gilan are making no distinction between this species and other species of Ardeidae, and are shooting or capturing them whenever they can. In some cases, Great Bitterns are taken deliberately for taxidermy. Because of their low flight over the reed-beds, the birds are easily shot or captured in flight nets. The numbers of this species wintering in Gilan have decreased considerably in recent years, and only one or two individuals have been recorded during the Mid-winter Waterbird Censuses in the past four years (Gilan Provincial Office of the DOE, unpubl. data).

Various small passerines such as Great Tit *Parus major*, Common Chaffinch *Fringilla coelebs* and Eurasian Blackbird *Turdus merula* often move into urban areas during severe winters and then are occasionally either shot with air-guns or caught in traps. These birds are sold in the bazaars as food, especially during severe winters such as that of 2003/2004. Twenty Great Tits, Common Chaffinches and Eurasian Blackbirds can be sold for 20,000 Rials (c. 2 US dollars). The highest numbers of Passeriformes are offered for sale in February, at a time when large numbers of these birds are seeking refuge in the southwest Caspian region. This underlines the urgency to provide these birds with protection, particularly during severe winters.

This survey revealed that many surface-feeding ducks as well as Eurasian Coot were being sold in Langarud market in all months from October to March. The protection of wetlands in eastern Gilan has attracted thousands of surface-feeding ducks to these areas. However, although these areas play an important role as refuges for large numbers of Anatidae (Balmaki *et al.* 2005, Metson 1998), the illegal hunting methods employed by the

inhabitants, including aerial nets and other traditional and prohibited and/or restricted methods, will undoubtedly result in a decline in the duck populations.

It is therefore recommended that the DOE, as the sole organization responsible for the protection and conservation of birds in the country, and with a view to maintaining viable and sustainable bird populations which are demonstrably of economic importance to the inhabitants of the region, should control all hunting and prosecute anyone resorting to illegal hunting of birds.

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