IS THE SLOPE BETWEEN THE ALBORZ MOUNTAINS AND CASPIAN SEA IN NORTHERN IRAN A BOTTLENECK FOR MIGRATING RAPTORS?

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Migrating raptors tend to follow land masses and avoid flying over water where they cannot hunt or rest and are often forced to use powered flapping flight (Kerlinger 1989, Bildstein 2006, Agostini et al. 2015, Nourani et al. 2016). For this reason, many migrating raptors are funneled along coastal areas and over peninsulas and straits, and larger species, in particular, often circumnavigate open ocean and other large waterbodies to avoid flying over water (Alerstam 2001, Meyburg et al. 2002, Panuccio et al. 2012). In the Afro-Palearctic migratory system, raptor flyways are shaped by land masses, with migratory concentrations occurring, from west to east, at the Strait of Gibraltar, the Strait of Messina, Bosphorus, Eilat, and Batumi (Shirihai et al. 2000, Panuccio 2011, Verhelst 2011, Martin et al. 2016, Panuccio et al. 2017). At all those watch sites, raptors concentrate as they bypass a large water body (i.e., the Mediterranean, Red Sea, and Black Sea). Farther east, the southeastern corner of the Caspian Sea is an area over which hundreds of harriers (Circus spp.), Eurasian Sparrowhawks (Accipiter nisus), and Black Kites (Milvus migrans) concentrate during spring migration. In this area, raptors fly across Gorgan Bay using the Mian Kale peninsula and the Ashura Deh Island to cross the southernmost part of the Caspian Sea (Ullman and Ullman 2010). Information on the autumn raptor migration in this area is scarce, although a 2-hr count in 1978 at a site located approximately 1 km east of the southeast corner of the Caspian Sea yielded 115 Lesser Spotted Eagles (Clanga pomarina) together with other raptors (Rands et al. 1982). Feeny et al. (1968) pointed out the importance of the area for bird migration but focused mostly on waterbirds. Zalles and Bildstein (2000) summarized the limited information available at the time and suggested that the area might be important for the autumn migration of raptors. Moreover, some Steppe Eagles (Aquila nipalensis) equipped with satellite transmitters have been recorded migrating across the Alborz Mountains (Meyburg et al. 2012).

To gather information on raptor migration in northern Iran, we surveyed an area in the northeast of the country between 8 and 12 October 2017. Our aim was to verify whether a considerable autumn passage of migratory raptors occurs between the Caspian Sea and the northern ridge of the Alborz Mountains. We made observations from several places in the lowlands close to the southeastern corner of the Caspian Sea, from the ridge of the Alborz Mountains, and from hilly slopes in the foothills of the mountains (Fig. 1). We also talked with local people in the villages and with rangers, asking whether they had observed relevant concentrations of migrating raptors. We observed raptors from various point locations for a total of 25 hr, and spent a similar amount of time traveling to look for viewpoints and query local people to help us find suitable raptor watch sites.

We observed 1069 birds in active migration, 770 of which were raptors; the remaining migrants were Common Cranes (Grus grus) and Blue-cheeked Bee-eaters (Merops persicus). The most common raptors were Steppe Eagle, Western Marsh-Harrier (Circus aeruginosus), Eurasian Kestrel (Falco tinnunculus), Lesser Kestrel (F. naumanni), and Lesser Spotted Eagle (Table 1). We observed most raptors...