



A Review Article:

Description and Overview of the Western Marsh Harrier *Circus aeruginosus* (Linnaeus, 1758)

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Abstract

The current study gives information about the Taxonomy, morphology, and migration routes of the Western Marsh Harrier *Circus aeruginosus* which is one of the most common raptors in Iraq's southern Mesopotamian marshlands. This review presented several topics related to the monitoring migration of this bird, Western Marsh Harrier *Circus aeruginosus*, its classification where it belongs to the order of Accipitriformes and the family of Accipitridae. It has been considered a native breeding resident in Iraq marshes (specially south area) and maybe in the wetlands part of middle Iraq , also it has been considered a migrant visiting Iraq in winter. It was once widespread in the Euphrates wetlands, and It bred in Hammar Lake and the marshes nearby Basra. The description of the bird, is a huge, hefty harrier with rather broad wings, larger than other European harriers. The male's feathers is mysterious reddish-brown and brighter golden streaks seen especially over the breast. A majority of the area around the shoulders and the head have a mild greyish-yellowish color. The rectrices, secondary and tertiary remiges are all absolute grey, contrasting with a brown color in the forewing and the black main remiges on their wingtips. About the female is nearly totally chocolatey brown. The upper parts of the head, throat, and the shoulders have a markedly brighter yellowish tone; These could be sharply delineated with quite contrasting.

There are two major known migratory raptor routes in the western Palearctic, the first one is flyway from West African , Eurasian- to East African (named western of Black Sea), that connects northern Europe with western Siberia to Middle East which ends in the sub-Saharan Africa ,the second flyway from Western European- to the West African (the Atlantic) , which raptors use.

Keywords: Moringa water extract, semen characteristics, local ram, cryopreserved periods.

Introduction

In the fall, raptors from the eastern part of the Palearctic reach in Middle East by two main routes, one of this way follows two

sides : the area of the Caspian Sea and Black Sea, bypassing the area of eastern Mediterranean and northern Red Sea , before entering Sinai through Israel via

Dead Sea by the KfarKasem in EliatSuez route. (Alsheikhly and Alazawi, 2019; Shirihai and Christie, 1992; Verhelst *et al.*, 2011; Fülöp *et al.*, 2018; Porter and Beaman, 1985). The second significant flyway includes primarily both the eastern and western populations that traveling along the southeast coast side of Caspian Sea and traversing the northern of the Arabian Peninsula, also Arabian Gulf and they use of Hormuz Straits, reach to southern Red Sea through the Straits of Bab-El-Mandeb among Yemen and Djibouti. (Shirihai and Christie, 1992; Shirihai *et al.*, 2002; Ullman and Ullman, 2010; Panuccio, Ghafouri and Nourani, 2018). Many migrating raptors including but not limited to the Western Marsh Harrier pass through Iraq on their way to wintering sites in Arabia and Africa (Al-sheikhly and Al-azawi, 2019). The Western Marsh Harrier is a least concern species (Birdlife International, 2022). Moreover, according to (Scott, 1995b; Abed, 2007; Fazaa *et al.*, 2017b; Al-sheikhly and Al-azawi, 2019) The Eurasian Marsh Harrier is the most abundant and notable raptor species found in Iraq wetlands (Mesopotamian). It is thought to be a local breeding that lives in Iraq marshes in the south and potentially it living a long of central Iraq wetlands, in addition to being a passage migrant and a visitor come in winter (Salim *et al.*, 2012). It was originally common in the wetlands of the Euphrates, the Hammar Lake (in southeastern Iraq), and many marshes around Basra, (south Iraq) where these raptors bred and grow. (Ticehurst and Cheesman, 1922). It was known in Kut's city (in Suweicha marsh) also in the wetland among the Suweida area and the Chabbab area near the Tigris River. (Bashir E Allouse, 1960; Moore and Boswell, 1965).

Taxonomy of the Western Marsh Harrier

The classification of Western Marsh Harrier according to The Global Biodiversity Information Facility, (GBIF, 2023) as follow:

Kingdom: Animalia

Phylum: Chordata

Class: Aves

Order: Accipitriformes

Family: Accipitridae

Genus: *Circus* (Lacepede, 1799)

Species: *aeruginosus* (Linnaeus, 1758)

Synonyms= *Falco aeruginosus* (Linnaeus, 1758)

These birds has been assigned to a genus *Circus*, which were named accordance with a scientist French name Bernard Germain de Lacépède in 1799 (Gill *et al.*, 2023). The genus *Circus* is take from Ancient Greek *kirkos*, which refers to a bird

of prey that named because it circling flight (*kirkos*, "circle"), most likely a hen harrier. *Aeruginosus* is the name that come from Latin meaning "rusty." (Jobling, 2010). According to (Gill, Donsker, and Rasmussen, 2023)

Two subspecies are categorized: *C. a. aeruginosus* – breeding in the Middle East, Europe, and Asia wintering in southern Europe, southern Asia, and Africa *C. a. harterti* – which is a resident in northwest Africa.

Morphology of the western marsh harrier

The Western Marsh Harrier is a huge, hefty harrier with rather broad wings,

larger than other European harriers, also it is sexually male and female. The male's feathers are mysterious reddish-brown and brighter golden streaks seen especially over the breast. A majority of the area around the shoulders and the head have a mild greyish-yellowish color. The rectrices, secondary and tertiary remiges are all absolute grey, contrasting with a brown color in the forewing and the black main remiges on their wingtips. Both sides top and bottom of a wing are identical, however, you can see brown color on the underside is more lighter (Fig. 1). Flying males have a striking three-color from the bottom to the top pattern of black, grey and brown whether viewed from any side. The feet, legs, black bill's, irides, and cere are yellow. Female color is nearly totally chocolatey brown. The upper parts of the head, throat, and the shoulders have a

markedly brighter yellowish tone: these could be sharply delineated with quite contrasting, and this can be finely outlined and extremely striking, matching the male's colors in head (particularly the old plumage). (Fig. 2). However, The female's has darker eye area highlighting the bright eye, the head has color, while the male's head doesn't look particularly colored, also female's lacks grey color in wing and tail.

The female's kids (Juveniles) look similar to females with had less yellow color particularly on shoulders. Juveniles measure (48–56 cm) length, and the wingspan of (115–130) cm, the weight in males (400–650) g, and in females about (550–800) g. (Cramp and Simmons, 1980; Mullarney *et al.*, 1999; Porter and Aspinall, 2013).



Figure 1: Full Adult Male Western Marsh Harrier in flight.



Figure 2: Full Adult Female Western Marsh Harrier.

The migration routs

The Western Marsh Harrier is a migrant bird in part of year (Cramp and Simmons, 1980). They have rather two long big wings that usually employ powered flying for migration (Spaar and Bruderer, 1997), attempting to cross vast expanses of the water (rivers , lakes , ocean ..etc), (Kerlinger, 1989; Bildstein, 2006). As a result of this, they like to advance on broad fronts. (Cramp and Simmons, 1980; Zalles and Bildstein, 2000; Agostini and Panuccio, 2010a). Its zoogeographic range stretches from western Europe , and from the east to Baikal in Central Asia , Mongolia, the Asia Minor, and all the way to Northern Africa. Wintering takes place in the Sub-Saharan Africa and southern Europe (with exceptions across the equator) (GRIN, 2022).

There are two major known migratory raptor routes in the western Palearctic (Bildstein and Zalles, 2005; Bildstein, 2006). The first one is flyway from West African , Eurasian- to East African (named western of Black Sea), that connects northern Europe with western Siberia to Middle East which ends in the sub-Saharan Africa ,the second flyway from Western European- to the West African (the Atlantic) , which raptors travel from straight Scandinavian country to the Spain (Shirihai et al., 2002; Shirihai and Christie, 1992; Fülöp et al., 2018; Bildstein, 2006; Meyburg et al., 2017; Alsheikhly and Alazawi, 2019). However, Marsh harriers originating in northeastern Europe and traveling However, Marsh harriers originating in northeastern Europe and traveling to the south-west through the south of Baltic Sea (along shoreline) which contribution to

flyway from Western European to the West African (Polakowski et al., 2014; Panuccio et al., 2013).

Over the previous two decades, many scientists have researched the migration about these species inside Basin of the Mediterranean, utilizing observations made directly, using data on band recovery with radar, and at last they use satellite telemetry. (Agostini and Panuccio, 2010b).

During the fall and spring migrations, vast numbers of migrating raptors migrate via the main flyways, and fly far away from the ranges of high mountain and big bodies of water then congregate at different spots nearby Mediterranean Sea, and also nearby the Red Sea and Black Sea. (Verhelst et al., 2011). Sweden, Spain and Italy have the most bottlenecks on the West African and Western European flyway. (Polakowski et al., 2014; Bildstein, 2006; Kjellén and Roos, 2000), also other flyway are among those many countries like Israel, Georgia, Romania, Greece, Turkey, and Bulgaria find in the Eurasian- - East African which raptors use. (Ullman and Ullman, 2010; Bildstein, 2006; Shirihai and Christie, 1992; Porter and Beaman, 1985).

Raptors in the fall, migrating from the eastern part of the Palearctic reach in Middle East by two main routes, one of this way follows two sides: the area of the Caspian Sea and Black Sea, bypassing the area of eastern Mediterranean and northern Red Sea, before entering Sinai through Israel via Dead Sea by the Kfar Kasem- in-Eliat-Suez route. (Alsheikhly and Al-azawi, 2019; Shirihai and Christie, 1992; Verhelst et al., 2011; Fülöp et al., 2018; Porter and Beaman, 1985). The second significant flyway includes primarily both the eastern and western populations that traveling along the southeast coast side of Caspian Sea and traversing the northern of

the Arabian Peninsula, also Arabian Gulf and they use of Hormuz Straits, reach to southern Red Sea through the Straits of Bab-El-Mandeb among Yemen and Djibouti. (Porter and Beaman, 1985; Shirihai and Christie, 1992; Verhelst et al., 2011; Fülöp et al., 2018; Alsheikhly and Alazawi, 2019). Many migrating raptors including but not limited to the Western Marsh Harrier pass through Iraq on their way to wintering sites in Arabia and Africa (Al-sheikhly and Al-azawi, 2019). The Western Marsh Harrier is a least concern species (Birdlife International, 2022). Moreover, according to (Scott, 1995b; Abed, 2007; Fazaa et al., 2017b; Al-sheikhly and Al-azawi, 2019) The Eurasian Marsh Harrier is the most abundant and notable raptor species found in Iraq wetlands (Mesopotamian). It is thought to be a local breeding that lives in Iraq marshes in the south and potentially it living a long of central Iraq wetlands, in addition to being a passage migrant and a visitor come in winter (Salim et al., 2012). the Hammar Lake (in southeastern Iraq), and many marshes around Basra, (south Iraq) where these raptors bred and grow. (Ticehurst and Cheesman, 1922). It was known in Kut's city (in Suweicha marsh) also in the wetland among the Suweida area and the Chabbab area near the Tigris River. (Bashir E Allouse, 1960; Moore and Boswell, 1965).

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