

Distribution of the Common Kingfisher (*Alcedo atthis*) in the region of Souss Massa Draa and in the Atlantic Sahara

Juan José RAMOS & Pedro GONZÁLEZ DEL CAMPO
Birding Canarias

Doctor Jordán, 11. CP 38470 – Los Silos, Tenerife (Spain)
jramos@birdingcanarias.com

Disponible en ligne (Available online): 11 October 2013

The Kingfisher (*Alcedo atthis*) is an Eurasian species which is present discontinuously from the Iberian Peninsula, Great Britain, the Caucasus, Urals and North Africa to China, India and Indonesia. It is usually sedentary. However, the northernmost European populations migrate and regularly winter around the Mediterranean Sea and birds reach Southern Morocco, the Canary Islands and the Mediterranean Islands, where they do not breed (Moreno-Opo 2003, Moreno Opo 2004, Vilches *et al.* 2012).

Status in Morocco

In Morocco, it is present in many rivers flowing into the Mediterranean Sea and the Atlantic but is absent at high altitudes from the main mountain ranges (Middle, High and Anti-Atlas) and from Saharan Morocco (Thévenot *et al.* 2003).

There have been many records in the Souss Massa Draa region since Lynes (1925) who considered the species to be '*fairly common*' along the Oued Souss. Lynes (1925) and Lévêque (1976) found it breeding at Oued Souss and Rousseau (2000) at Oued Massa. Most recent records are from mid-October to mid-April within the boundaries of the Souss Massa National Park.

Status in Moroccan Atlantic Sahara

There has been no breeding evidence in the Moroccan Atlantic Sahara south of the Anti-Atlas:

- **Oued Noun.** Although there are several records in the Oued Noun valley (Bergier *et al.* 2012, 2013; P. Bergier comm. pers.), especially near Fort bou Jérif in the breeding season (e.g. 26 April 2012 - M. Roost *et al.* in Bergier *et al.* 2013), no breeding record has been reported.
- **Oued Draa.** Heim de Balsac & Heim de Balsac (1954) thought it was breeding at Guelta Zerga ('*Nul doute qu'ils ne soient nidificateurs en ce point*'); A. Qninba *et al.* (in Bergier *et al.* 2012) found it there again on 28 April 2011. There are a few records along the lower Oued Draa (e.g. two birds on March 1st 2010 – G. Bodor *et al.* in Bergier *et al.* 2012), but there is no definite breeding evidence.
- The southernmost records are from the area of **Akhfenir**: one bird at Khnifiss lagoon on 3 and 15 February 1986 (Baouab 1988), and another at Oued Ez-Zehar on 27 March 2008 (A. Qninba *et al.* in Bergier *et al.* 2010).

No other sighting is known South of this point in Moroccan Atlantic Sahara, but there is a record near Nouadhibou, Mauritania, on 24 August 1982 (Mahé 1985).

Our results in Souss Massa Draa and Lower Draa, March-June 2013

Between 15 March and 15 June 2013, during the EU Cross-Border Cooperation Programme - Climatique (Ramos & Gonzalez 2013), we visited many wetlands to investigate the status of the waterfowl populations breeding in the Souss Massa Draa and the Lower Draa regions. Observations were made by foot and by car, and we stopped at every lookout close to areas of open water with suitable environment for the Kingfisher.

Locations	Typology	Visits
Tamri	Estuary	May 1 st 2013
Assif Tamrhakt (Taghazout)	Creek	May 1 st 2013
Paradise Valley	Creek	May 26 th 2013
Oued Souss estuary	Estuary	Several times
Oued Souss low basin	River	April 4 th & 15 th 2013
Oued Souss middle basin	River	April 11 th 2013
Oued Massa estuary	Estuary	Several times
Oued Massa low basin	River	Several times
Oued Massa middle basin	River	Several times
Dam Youssef Ben Tachfine	Dam	April 3 rd & 28 th 2013
Oued Assif Umarhuz	River	April 6 th - May 12 th 2013
Oued Noun	River	April 9 th 2013
Oued Noun estuary	Estuary	April 9 th 2013
Oued Draa	River	May 20 th & June 4 th 2013
Oued Draa estuary	Estuary	June 4 th 2013

Table 1. Locations visited during the study.

Except one record made close to the Oued Souss estuary, which probably involves a bird in active migration, all the other ones have been from the Oued Massa valley, including its tributaries. Along the main Oued Massa valley, we have estimated a minimum of five different territories between the limit of the National Park and the bridge of the N1 national road.

Date	Locality	Birds	UTM	Activity
March 25 th 2013	Massa river gravel pits	1	29R 0442 - 3307	Fly
March 27 th 2013	Massa river	1	29R 0435 - 3316	Fly
March 31 st 2013	Ait Lyass – Massa river	1	29R 0435 - 3317	Fly
April 1 st 2013	Ait Lyass – Massa river	1 (male)	29R 0435 - 3317	Capture
April 2 nd 2013	Ait Lyass – Massa river	1	29R 0435 - 3317	Fly
April 4 th 2013	Souss river estuary	1	29R 0445 - 3357	Fly
April 22 nd 2013	Sidi R'bat	1	29R 0437 - 3328	Fly
April 29 th 2013	Ait Lyass	1 (female)	29R 0435 - 3317	Inland
May 2 nd 2013	Massa river gravel pits	1	29 R 0441 – 3309	Fly
May 2 nd 2013	Massa river gravel pits	1	29 R 0440 – 3309	Fly
May 2 nd 2013	Massa river gravel pits	1 (female)	29 R 0441 - 3307	Inland
May 6 th 2013	Ait Lyass – Massa river	1 (male)	29R 0435 - 3317	Fishing
May 12 th 2013	Assif Umarhuz	1	29R 0462 - 3297	Fly
May 13 th 2013	Ait Lyass	1	29R 0435 - 3317	Inland
May 14 th 2013	Massa river gravel pits	1	29R 0440 - 3309	Fly
May 14 th 2013	Massa river gravel pits	1 (male)	29R 0441 - 3307	Fishing
May 25 th 2013	Massa river	1	29R 0436 - 3319	Fly

Common Kingfisher in Souss Massa Draa

May 30 th 2013	Massa river gravel pits	1 (female)	29R 0441 – 3307	Inland
May 30 th 2013	Massa river gravel pits	1	29R 0441 - 3309	Fly
June 2 nd 2013	Massa river	2	29R 0436 - 3319	Inland

Table 2. *Alcedo atthis* records made during the study in the region of Souss Massa Draa.

The observations took place in sections of stagnant open waters more than five km inland from the sea with shores populated with a variable coverage of vegetation dominated by *Typha*, *Salix*, *Phragmites* and *Tamarix*, with the presence of nearby sandstone slopes for the birds to build their nests.

We got three breeding evidences:

- **April 1st, 2013.** A male with a *code 3* (Svensson 1996) incubation patch is captured and ringed near the village of Ait Lyass (Massa River, UTM 29R 0435-3317). Assuming that this bird was incubating, this date is somewhat early when compared with existing dates from the south of the Iberian Peninsula, where the reproductive period begins during the first week of May (Moreno-Opo, 2004). This early date may be related to the latitude and sedentary behaviour of the population of the Souss Massa.
- **May 2nd, 2013.** Three birds located in two different territories in the gravel pits of the Massa River, near the N1 - Agadir to Tiznit. Two holes dug in a sandstone slope might correspond to nests of this species.
- **June 2nd, 2013.** A pair close to an abandoned nest located 1.2 meter above the ground in a sandstone wall of about 2 meters high, North bank of the Oued Massa (UTM 29R 0436 – 3319).

Our records, together with those cited in the literature, confirm that the Kingfisher is common in the Oued Massa valley, which probably constitutes its Southern breeding limit in Morocco.



Photo 1 and 2. *Alcedo atthis* male with incubation patch captured for ringing.

Acknowledgements

Antonio Delgado, Ruben González Jáñez, Daniel González, Lhacen Ahuilat and Guacimara Arbelo for joining us on several days in the field. They also provided interesting comments that enriched our work. Patrick Bergier and Michel Thévenot for encouraging us to develop the monitoring of the birds in this region. Dr. Hamid Rguibi and the "Haut Commissaire aux Eaux et Forest et a la Lutte Contre la Desertification" provided us with the necessary permits for ringing activities in the Agadir province. Juan Ramirez, Yeray Seminario and Adela Gomez have made important and useful suggestions that greatly improved the manuscript.

References

- Baouab, R.E.** 1988. Checklist of birds observed in the Khnifiss-La'youne region between April 1985 and May 1986. Pages 115-125 in Dakki, M. & De Ligny, W. (Eds) *The Khnifiss lagoon and its surrounding environment (Province of La'youne, Morocco)*. Trav. Inst. sci. Rabat, hors série.
- Bergier, P. ; Qninba, A. ; El Agbani, M.A. & Dakki, M.** 2010. Notes naturalistes au Sahara Atlantique marocain - 2. *Go-South Bull.* 7 : 56-88.
- Bergier, P. ; Thévenot, M. & Qninba, A.** 2012. Notes naturalistes au Sahara Atlantique marocain - 4. *Go-South Bull.* 9 : 46-125.
- Bergier, P. ; Thévenot, M. & Qninba, A.** 2013. Notes naturalistes au Sahara Atlantique marocain - 5. *Go-South Bulletin* 10 : 113-197.
- Heim de Balsac, H. & Heim de Balsac, T.** 1954. De l'oued Sous au fleuve Sénégal. Oiseaux reproducteurs. Particularités écologiques. Distribution. *Alauda* 22: 145-205.
- Lévêque, R.** 1976. Nidification du Martin-pêcheur *Alcedo atthis* à l'embouchure de l'Oued Souss (Maroc). *Alauda* 44 : 93.
- Lynes, H.** 1925. Contributions à l'histoire naturelle du Maroc. I. L'Ornithologie des territoires du Sous (Maroc du Sud). *Mém. Soc. Sci. nat. Maroc* 13: 1-8.
- Mahé, E.** 1985. *Contribution à l'étude scientifique de la région du Banc d'Arguin (Littoral maritainien : 21°20'N-19°20'W). Peuplements avifaunistiques.* Thèse Doct. Univ. Univ. Sci. Tech., Montpellier, France.
- Moreno-Opo, R.** 2003. Martín Pescador Común, *Alcedo atthis*. In Martí, R. & Del Moral, J.C. Ed. *Atlas de las aves reproductoras de España*. pp. 342-343. DGCNSEO/ BirdLife. Madrid.
- Moreno-Opo, R.** 2004. Martín Pescador Común. In Madroño, A. ; González, C. & Atienza, J.C. Ed. *Libro Rojo de las Aves de España*. pp. 294-296. DGB-SEO/BirdLife. Madrid.
- Ramos, J.J. & González del Campo, P.** 2013. *Resultados del estudio de la migración prenupcial de las aves de la región de Souss - Massa. Servicio de análisis de la migración de las aves a Canarias y otras zonas a través de la región de Souss-Massa - Drâa, en el marco del proyecto Climatique.* Programa de Cooperación Transfronteriza España – Fronteras Exteriores 2008-2013 (POCTEFEX). Fondo Europeo de Desarrollo Regional (FEDER). Unión Europea. Instituto Tecnológico de Canarias. Birding Canarias S.L.U. 159 pp.
- Rousseau, E.** 2000. *Les communautés d'oiseaux du Parc National de Souss-Massa (Maroc) : diagnostic écologique et implications en terme de conservation.* Thèse EPHE, Montpellier. 158 pp.
- Svensson, L.** 1996. *Guía para la identificación de los passeriformes Europeos.* Sociedad Española de Ornitología. 401 pp.
- Thévenot, M. ; Vernon, J.D.R. & Bergier, P.** 2003. *The Birds of Morocco.* BOU Checklist n° 20. BOU. Tring.
- Vilches, A. ; Miranda, R. & Arizaga, J.** 2012. Estimación de la abundancia relativa de martines pescadores *Alcedo atthis* L., 1758 reproductores en ríos de la zona calcárea de la mitad norte de Navarra. *Munibe* (Ciencias Naturales-Natur Zientziak) 60: 159-166.