

A Philological And Zoological Description Of The Bird Names Given By Yāqūt Al-Ḥamāwī And Zakariāʾ Al-Qazwīnī In Their Description Of The Island Of Tinnīs Part 4. Philippe Provençal.

Natural history Museum of Denmark, Universitetsparken 15, 2100 Copenhagen, Denmark

This is the following up of my previous articles in Arabic Biology and Medicine entitled: A Philological And Zoological Description Of The Bird Names Given By Yāqūt Al-Ḥamāwī And Zakariā' Al-Qazwīnī In Their Description Of The Island Of Tinnīs¹. This series of article is treating philologically and biologically the list of 134/135 bird names included in the descriptions of the island of Tinnīs in Lake Manzalah in the Delta of the Nile which are given by Yāqūt ibn 'Abdullāh al-ḥamāwı (1179-1229)² in his *Mu'gam al-Buldān* and by Zakariā' b. Muḥammad b. Maḥmūd al-Qazwīnī (1203-

^{1.} Provençal, P. A Philological And Zoological Description Of The Bird Names Given By Yāqūt Al-Ḥamāwī And Zakariā Al-Qazwīnī In Their Description Of The Island Of Tinnīs, *Arabic Biology and Medicine*, May 2015, No. 3. vol. 1 p. 1-45,

A Philological And Zoological Description Of The Bird Names Given By Yāqūt Al-Ḥamāwī And Zakariā' Al-Qazwīnī In Their Description Of The Island Of Tinnīs -part 2, *Arabic Biology and Medicine*, November 2015, No. 3. vol. 2 p. 1-27,

A Philological And Zoological Description Of The Bird Names Given By Yāqūt Al-Ḥamāwī And Zakariā Al-Qazwīnī In Their Description Of The Island Of Tinnīs -part 3, *Arabic Biology and Medicine*, May 2016, No. 4. vol. 1 p. 1-20.

^{2.} al-Qazwīnī, Zakariā b. Muḥammad b. Maḥmūd; *Kitāb 'Ağā'ib al-maḥlūqāt wa ġarā'ib al-mawǧūdāt - El Cazwini's Kosmographie*. Ed. F. Wüstenfeld. Genehmigter Neudruck des Ausgabe von 1848-49 des Verlages der Dieterichschen Buchhandlung. Martin Sändig 1967: Wiesbaden.

1283)³ in his Cosmography, Kitāb 'Ağā'ib al-Mahlūqāt wa Gharā'ib al-Mawjūdāt. As the amount of material involved in this study is extensive, the treating is taking place using several articles.

In the treating of these bird names I will in this article treat the names, for which the identity is still rather easy to work out but which require more philological and zoological treating compared with those treated in my three previous articles. As in the previous articles, the treated species will taxonomically be spread out in order to provide a better overview of the knowledge found in the Arabic texts on zoology. As explained in my previous article of May 2015, some bird names are still in use and the species in questions are well described in the classical literature. In order to avoid making the text of this article too long, we will only treat (14) species here. The remaining being treated in subsequent articles. For a general treating of list of bird names and an overview of the sources used see my previous article from May 2015^4 .

THE BIRD NAMES:

1. الباز الرومى/Al-bāz ar-rūmı (No. 5)5/Goshawk Accipiter

³ Yāqūt al-ḥamāwī, Jacuts Geographisher Wörterbuch, herausgeben von Ferdinand,

Wustenfeld, Leipzig 1866-70. Reprint by Asādi Library, Teheran.

^{4.} Provençal, A Philological Description.

⁵ The numbers refer to the number of the item in the list of bird names as noted by Yāqūt Al-ḥamḍwī, see Provençal, A Philological Description, May 2015, p. 14-16.

gentilis gentilis

Philological comments

According to Viré (1977)⁶ this name should be the one used by the falconers of the classical period to designate a Goshawk originating from Greece or Anatolia (i.e. The Byzantine Empire). This name has probably been placed wrongly in this list of bird names as the larger Raptors all are placed in the end. The term bāzī بازي has already been treated as it is no. 124 of the list of bird names⁷

2. السقاء / as-saqqā' (No. 9) (vocalisation conjectural)/

Goldfinch Carduelis carduelis

Philological comments

An-Nuwayrı writes in the Nihāyah⁸:

و أما الحسون ـ و تسمّيه أهل الاندلس» أمّ الحسون «والمصريون »السقاية «لانّه إذا كان قي القصف استقى الماء من إناء بآلة لطيفة يوضع له قيها (...) وهو ذو ألوانٍ حسنة التركيب والتأليف من الحمرة والصفرة والرقة والسواد والبياض والخضرة والزرقة . وله صوتٌ حسنٌ مُطربٌ

"And concerning the hassūn - the people of Andalusia calls it "Umm hassan" and the Egyptians call it as-Saqāyah (i.e. the water vessel, or perhaps

^{6.} Viré, F. 1977. Essai de détermination des oiseaux-de-vol mentionnés dans les principaux manuscrits arabes médiévaux sur la fauconnerie. *Arabica*, tome XXIV, p. 140.

^{7.} Provençal, *A Philological Description* – Part 3, pp. 17-18.

^{8.} An-Nuwayrī (ed.1923-55): *Nihāyat al-Arab fī Funūn al-Adab*. Photomechanical reprint of the ed. of Dār al-Kutub al Miṣriyyah. Ministry of Culture and National Guidance, Egypt. Book 9 pp. 224-383 and book 10 pp. 1-354.

the water carrier cf. the name in the list " as-Saqqā'") Because when (this bird) is in a cage it draws water from a water vessel (with help) of a tiny instrument which is placed in the cage for this (purpose)... This bird is endowed with colours, whose composition and combinations are beautiful consisting of red, yellow, black, white, and translucent green⁹. It has a pretty and melodious voice....". This description is in good accordance with the features of the Goldfinch¹¹.

Amin Malouf writes:

Goldfinch Carduelis carduelis

حسّون ـ طائر من العصافير ذو الوان بحمرة و صفرة و بياض و سواد و زرقة يسميه اهل الاندلس ابا الحسن و المصريون ابا زقاية و ربما ابدلوا الزاي سيناً) الدميري (و يعرف في الشام بالحسون الى يومنا و يسميه بعضهم الشوكيّ (hassūn) الح Goldfinch (hassūn) 12: A bird among the passerines endowed with colours in red, yellow,

passerines endowed with colours in red, yellow, white, black and blue¹³ (or shining or translucent colours, see footnote 7). The people of Andalusia calls it $Ab\bar{u}$ -l-hasan and the Egyptians call it $Ab\bar{u}$

_

^{9.} The broad yellow longitudinal stripe on the wing of the Goldfinch is translucent when the bird is flying away and may appear as yellowish green (personal observations on Goldfinches in the field, see also Génsbøl, B. 1991, *Nordens Fugle*, second ed. Gad, Copenhagen, p. 457). For the interpretation of azraq/zurqah as shining or tranlucent cf. Fischer, W., 1965, *Farb- und Formbezeichnungen in der Sprache der Altarabischen Dichtung*, Otto Harrassowitz, Wiesbaden pp. 47 - 55.

^{10.} An-Nuwayrī, *Nihāyat*, section 10, p. 251, author's translation.

^{11.} Cf. Peterson, R., G. Mountfort, P. A. D: Hollom 1989. *Europas Fugle*.Translated to Danish by D. Boertmann and J. Fjeldså. Copenhagen, C.E.G. Gads Forlag,p. 223 and plate 71. Also personal observations by the author on Goldfinches in the field.

^{12.} Malouf, A.,1932, An Arabic zoological dictionary al-Muktataf Press, Cairo, p. 117, the first part is copied by Malouf from al-Damiri's description; Al-Damiri, Kamāl ad-Din (1861) Kitāb ḥayāt al-ḥayawān al-Kubrā, ed. Muḥammad Shāhin and ed. Dār al-Fikr, Bayrūt, Lebanon.

^{13.} Al-Damīrī has also written "and green" but Malouf does not include it in his citation of the desription given by al-Damīrī

Zaqāyah, but the sometimes shift [i.e. make a metathesis of] the $z\bar{a}y$ for a sin (ad-Damiri). [This bird] is known in Syria by the name $has\bar{u}n$ until today, and some people call it the $sawki^{14}$..."

Goodman et al. write that the Egyptian names for the Goldfinch there are: $`U\underline{s}f\bar{u}r\ hass\bar{u}n$ عصفور حسون, $Ab\bar{u}\ Saq\bar{a}yah$, $hass\bar{u}n$, $Shuwayki^{15}$. According to Kazimirski is a name for the Goldfinch too 16.

The name $saq\bar{a}$ سقاء is among the Arabic names for the pelicans, but as water birds and water fowl constitute a proper division in this bird list, whereas smaller birds and passerines are (more or less) the ones listed in the section where the سقاء is mentioned, the identification of the saq \bar{a} with the goldfinch is maintained here ¹⁷.

Biological comments:

The Goldfinch is a common breeding resident in most green parts of Egypt¹⁸ but the breeding population seems to have been very low and probably reduced to zero in the middle of the 20th century¹⁹.

¹⁴ Malouf, *An Arabic Zoological*, p. 117. Sawk means thorn of thithle in Arabic. This name is an allusion to the habbit of this bird to feed from thithles.

^{15.} Goodman, S. M. and P. L. Meininger, S. M. Baha el Din, J. J. Hobbs, W. C. Mullié 1989: *The Birds of Egypt.* Oxford University Press. Oxford, New York, p. 467.

^{16.} Kazimirski, A. B. 1860. *Dictionnaire Arabe - Français*, Paris, Maisonneuve et C^{ie}.

^{17.} Cf. Provençal, P., Arabic Biology, May 2015, pp. 19-20.

^{18.} Goodman, *The Birds* p. 467.

^{19.} Ibid. pp. 468-469

Concerning the Arabic speaking world the Goldfinch is in recent time breeding in many wide areas in the Middle East and North Africa and it may be encountered in the winter season in most parts of the Middle East and North Africa however being rarer in the eastern, central and southern parts of the Arabian Peninsula²⁰.

الزاغ /Az-Zāġ (No. 15)/Chough / Pyrrocorax pyrrocorax / Hooded Crow Corvus corone sardonius

Philological comments

The name $Z\bar{a}\dot{g}$ for the Hooded Crow is given by Malouf²¹ and is confirmed by Goodman et al.²². However in modern times the name $Z\bar{a}\dot{g}$ is used to denote the Chough and the Rook *Corvus frugilegus* in the colloquial Arabic of the Syro-Palestinian region²³. For the members of the *Corvus* genus, which are usually called Ravens in English, the name is $\dot{g}ur\bar{a}b$, $\dot{g}urb\bar{a}n$ $\dot{g}urb\bar{a}n$ in Arabic²⁴. The Rook is called $\dot{g}ad\bar{a}f$ in modern Egyptian together with $\dot{g}ur\bar{a}b$ al $\dot{g}uyt^{25}$.

_

^{20.} Hollom, P. A. D., R. F. Porter, S. Christensen, I. Willis, 1988, *Birds of the Middle East and North Africa*. T & D Poyser: Calton, p. 244.

^{21.} Malouf, An Arabic zoological, p. 76.

^{22.} Goodman, *The Birds* p. 450.

^{23.} Dalman, G. 1913. *Arabischen Vogelnamen von Palästina und Syrien*. Zeitschrift des Deutschen Palästinavereins nr. 36 pp. 165-179, No. 61, 63 and 66.

²⁴. This names is also used as a common designation for black corvids.

^{25.} Goodman, *The Birds* p. 450.

Ad-Damırı on the other hand clearly describes the Chough under the entry Az- $Z\bar{a}\dot{g}$ as he writes:

الزاغ:من أنواع الغربان يقال له الزرعي و غراب الزرع وهو الزاغ:من أنواع الغربان يقال له الزرعي و غراب الزرع ويقال له غراب أسود صغير وقد يكون محمر المنقار ورجلين ويقال له غراب الزيتون لأنه يأكله وهو لطيف الشكل حسن المنظر Az-zāġ: it belongs to the species of corvids. It is also called the zar'ı and ġurāb az-zar²⁶. It is a small black Corvid, and it has a really²⁷ red beak and red legs. It is called the Olive-Corvid because it eats olives. It is of fine shape and pretty to look at.

Al-Qalqašandı wrote:

ومنها الزاغ ـ (...) وهوضرب من الغربان صغير أخضر اللون لطيف الشكل حسن المنظر ، وقد يكون أحْمر المنقار والرجلين وهو الذي يقال له غراب الزيتون ، سُمِّي بذلك لأنّه يأكل الزيتون ومنها الغُدَاف ـ (...) و هو غراب الغيط (...) قال ابن فارس: هو الغراب الضخم وقال العبدري : هو غراب صغير أسود لونه كلون الرماد

"And among them [i.e.the birds] there is the Chough $(az-z\bar{a}\underline{\dot{g}})(...)$. It is a kind of little Corvid of black colour²⁸, of fine shape and pretty to look at. It really has a red bill and red legs. It is the kind which is called the "olive crow" because it eats olives.

And among them [i.e.the birds] there is the Rook ($\dot{G}ud\bar{a}f$). It is the [kind called] the $\dot{G}ur\bar{a}b$ al- $\dot{G}ayt$. Ibn Fāris has told: "that it is the "fat crow". Al 'Abdarı has told that it [the Rook] is

^{27.} For the use of in front of an imperfect in order to enforce a statement see Blachère, R. M & Gaudefroy-Demombynes, 1975, *Grammaire de l'arabe Classique*, G.P. Maisonneuve & Larose, Paris, § 165 p. 253.

_

^{26.} Both names may be translated to "the black corvid of the sowing".

^{28.} For the translation of a*f*∂ar as black see Fischer, W., 1965, *Farb- und Formbezeichnungen in der Sprache der Altarabischen Dichtung*, Otto Harrassowitz, Wiesbaden, pp. 233-241.

a little dark Crow whose colour is like the colour of ash."

The first description is paraphrasing ad-Damırı and confirms, that in medieval Arabic $z\bar{a}\dot{g}$ was the name of the Chough. The description is in accordance with the features of the Chogh²⁹. On the other hand the second description together with the modern uses in the colloquial Arabic of Egypt and the Syro-Palestinian region clearly show, that the names $Z\bar{a}\dot{g}$, $\dot{G}ud\bar{a}f$, $\dot{G}ur\bar{a}b$ al- $\dot{G}ayt$ have shifted species identity in modern colloquial Arabic and also have been subject to some confusion in the Arabic literature because while al-Qalqašandī has the same use as in modern Egyptian Arabic of $\dot{G}ud\bar{a}f$ and $\dot{G}ur\bar{a}b$ al- $\dot{G}ayt$ for the Rook, the last description given by al-'Abdarī does not fit the Rook but Hooded Crow³⁰.

Biological comments

The Hooded Crow of the subspecies *sardonius* is the only representative of *Corvus corone* in Egypt³¹ and it is an urbanised and common bird there³². The Hooded Crow is by far the most common crow in Egypt. The Rook being a rare and irregular winter visitor and The House Crow *Corvus splendens* is a bird introduced in recent time³³.

-

^{29.} Peterson et al. *Europas Fugle.*, p. 216 and plates 69 and 70.

^{30.} Peterson et al. *Europas Fugle*, plate 70 and personal observations on live birds in the field.

^{31.} Goodman, *The Birds* p. 450.

³² P. Provençal, personal observations in the Cairo area in April 1993 and in al-ġardaqah (Hurghada) in may 2011.

^{33.} Goodman, *The Birds* pp. 448-450.

The Chough is not a bird being recorded in Egypt in recent time. However it was recorded in the 19th century in Sinai, but without any recorded collected specimen. The Chough is breeding at the present time in north-west Africa and in Turkey, Lebanon and Iran³⁴.

الراهب /al-rāhib (No. 20) / **Blackcap / Sylvia atricapilla /** the male bird

Philological comments

As the female bird with all probability is on the list as No. 25 where it is written by its Syrian name according to Malouf³⁵, and as the male bird according to the same author is known by the name $\underline{h}\underline{u}\underline{r}\underline{l}$ in Lebanon, which means the priest or clergyman, and as the word rāhib in classical Arabic means a monk, the identification of the rāhib with the male of *Sylvia atricapilla* is hereby suggested. This name of the bird is thus similar to its Danish and Norwegian name "munk" which means monk. In all cases the name seems to refer to the black upper head of the male bird which may remind of the cap of a clergyman.

According to Lane (1879) who refers to the Qāmūs of al-Fırūzābādı, the word arhāb is designating all birds which are not Raptors.

^{34.} Hollom, *Birds of the Middle East*, p. 226.

^{35.} Malouf, An Arabic zoological, p. 36.

Biological comments

At the present time the Blackcap is a rare autumn migrant and a fairly common spring migrant in Egypt. It does occur in winter but scarcely³⁶. In the Arab world the Blackcap is breeding in North Africa where only part of the population migrates. It is a summer breeding bird on the Black Sea cost of Turkey and in northern Iran especially around the Caspian coast. It is common on passage in most parts of the Middle-East and North Africa except Tunisia and Most of Arabia outside Yemen³⁷.

الشماص /aš-šamāṣ (No. 25) / **Blackcap** / *Sylvia atricapilla* / the female bird.

Philological comments

This bird is called *šamās* شماس in the list provided by al-Qazwını. This is the name of the female Blackcap in Lebanon³⁸. The reason that the sexes of this species have different names is, that they look differently. While the colour of the plumage on the main parts of the body are more or less similar in both sexes being grey (the plumage of the female is a little more brown than that of the male), the top of the head is covered by a black patch going down the top of the eyes in the male while the female's patch is red-brown. These patches are called caps.

2

^{36.} Goodman, *The Birds* p. 428.

³⁷ Hollom, *Birds of the Middle East*, p. 205.

^{38.} Malouf, An Arabic zoological, p. 242.

Biological comments

See above the Blackcap, the male bird.

المطوّق / Al-muṭawwaq (No. 61)/**Ringed Plover** /*Charadrius hiaticula* / Little Ringed Plover / *Charadrius dubius*

Philological comments

The name of the Ringed Plover in Egypt is $Ab\bar{u}$ al-Ru' $\bar{u}s$ al-Mutawwaq (أبو الرؤوس المطوق) according to Malouf³⁹. Both species are called $Qatq\bar{a}t$ mutawwaq(قطقط مطوق) in Egypt according to Goodman et al.⁴⁰. The Ringed Plover indeed deserves the name Mu†awwaq i.e. "adorned with a necklace or neck-ring" as this bird is endowed with a conspicuous black collar on a pure white belly and throat. All in all the black and white patterns of the head and neck gives the impression that these birds are adorned with a Jet Black and a Pure white collar; especially the black collar is very conspicuous when the bird is looked upon from the front 41 .

The word *Muṭawwaq* is an adjective denoting a collared or necklace pattern and is therefore used to denote all birds having such patterns, especially the doves and pigeons having that kind

3

³⁹ Malouf, ibid. p. 192. Malouf uses Maḥmūd Hilmī al-Samā as source.

^{40.} Goodman, The Birds, p. 243.

^{41.} P. Provençal, personal observations in the field on live specimen of both species, cf. also Delin, H., L. Svensson 1990. *Photographic guide to the birds of Britain and Europe*. Hamlyn Publishing Group Limited, London, p. 101.

of patterns (cf. No. 11 of this list)⁴².

Biological comments

At the present time the Ringed Plover is a fairly common passage visitor and winter visitor in Egypt⁴³. On my visit to Lake Manzalah on 7 April 1993 several Ringed Plovers were observed. The Little Ringed Plover is found in Egypt too, though being much scarcer. It nevertheless is a scarce summer breeding bird in the north of the country⁴⁴.

al-ahmar (No. 81) / Pochard / Aythya ferina الأحمر

Philological comments

Both Malouf⁴⁵, Viré⁴⁶ and Goodman et al.⁴⁷ write that one of the names in Arabic for the Pochard is *baṭṭ aḥmar* (بطر) with the name *ḥumrāy* مند as the common Arabic name for this species. Most of the other Arabic names for the Pochard are also derived from the root 'ḥmr⁴⁸. These names are all derived from the conspicuous red head of the male⁴⁹ which may be recognised from a good distance in bright sunlight⁵⁰.

^{45.} Malouf, An Arabic zoological, p. 192.

-

^{42.} Provençal, A Philological Description-part 2, pp. 2-6.

^{43.} Goodman, The Birds, p. 243.

^{44.} Ibid.

^{46.} Viré, F. in Etchécopar, R.D., F. Hüe. 1964. Les Oiseaux du Nord de l'Afrique de la Mer rouge aux Canaries. Paris, N. Boubée et C^{ie}.

^{47.} Goodman, *The Birds*, p. 165.

^{48.} Goodman, ibid.; Viré, *Les Oiseaux*, p. 581; Goodman, *The Birds* p. 165.

⁴⁹ Peterson et al. *Europas Fugle*, plate 12.

^{50.} Author's personal observations in the field.

Biological comments.

At the present time the Pochard is a common winter and passage visitor in Egypt. The Pochards are very widespread in the Nile Delta lakes during their visit⁵¹.

الأزرق /Al-azraq (no. 82)/ **Tufted Duck** / Aythya fuligula

Philological comments

According to Goodman et al.⁵² the name of the Tufted Duck in Egypt is *zurqāy* تُرُفّاي The Tufted Duck bears other names derived from the root 'zrq⁵³. The Ferrugineous Duck *Aythya nyroca* is called *zurqāy aḥmar* in Egypt in recent time⁵⁴ (Malouf 1932 p. 192, Viré 1964 p. 581, Goodman et al. 1989 p. 166). But as the binomial naming of the Ferrugineous Duck in all probability is derived from the name of the Tufted Duck, as all the names pertaining to the latter and derived from the root 'zrq are single and not binomial, the identification of the *azraq* with the Tufted Duck is retained here. The derivation from the root 'zrq is due to the fact that the male of the Tufted Duck has a bluish gloss on its black plumage, and that both sexes have a blue bill⁵⁵

^{51.} Goodman, *The Birds*, p. 165.

^{52.} Goodman, *The Birds*, p. 166.

^{53.} Goodman, ibid.

^{54.} Malouf, *An Arabic zoological*, p. 192; Viré, *Les Oiseaux*, p. 581; Goodman, *The Birds* p. 166.

^{55.} P. Provençal personal observations on living specimens; cf. also Delin, *Photographic guide*, p. 51

Biological comments

Both species are common in Egypt as passage and winter visitor. The Ferrugineous Duck being scarcer though⁵⁶. The Tufted Duck is a northern species but the Ferrugineous Duck is breeding in some parts of the Middle East⁵⁷.

الغرياق / al-ghiryāq (No. 94) / **White-fronted Goose** /*Anser albifrons* /

Lesser White-fronted Goose / Anser erythropus

This bird is called al-' $ir\bar{a}q$ by al-Qazwını. It seems that the name ' $ir\bar{a}q$ usually with a nisbah ending ' $ir\bar{a}qi$ is a common name in Arabic for wild geese and swans.

Al-Nuwayrī wrote:

و أمّا الأوز و ما قبل فيه - والاوز ثلاثة أصناف :بطائحي و هو الطويل الأسود، تركي و هو المدوّر المائل الى البياض ، وخبيّ و هو الضخم الكبير منها (...) والاوز البطائخي ، و هو المعروف بمصر بالعراقي ، يخالف الخبيّ في الصياح ؛ لأنّ الحبيّ تصيح ذكورها و لا تصيح إناثها ، والبطائحيّ بخلاف ذلك . والخبي من الطير الأوابِد التي لا تبرّح من الاماكن التي تُربّى فيها لثقل أجسامها ، واذا نهضت فلا ترتفع من الارض الا يسيرا . والعراقيّاتُ من الطير القواطِع التي تنتقل من المكان الى آخر ، و توى في وقت دون وقتٍ القواطِع التي تنتقل من المكان الى آخر ، و توى في وقت دون وقتٍ

"Concerning the Goose and the matters told about it: There are three kinds of geese: "the Marsh Goose" which is the tall and dark kind, "the Turkish (or Central-Asian) Goose" which is of rounded shape and whose colour is turning towards white and "the Pond Goose" which is the big and

^{57.} Hollom, *Birds of the Middle East*, p. 45.

^{56.} Goodman, *The Birds*, p. 166.

heavy among the three (...) The Marsh Goose, which is the one known as "the River-bank Goose" in Egypt ('Irāqi'). The Marsh Goose differs from the Pond Goose with respect to its cries because [only] the males of the Pond Geese utter cries while the females do not, whereas this feature is different concerning the Marsh Geese. The Pond Goose belongs to the remaining birds which do not leave the places in which they are reared up due to the heaviness of their body. When one of these birds takes off it does not raise itself more than lightly from the ground. The River-bank geese (al-'irāqiyyāt') on the other hand belong to the wandering birds which move from one place to another and are [only] seen from time to time" 58.

Al-Qalqašandī wrote:

والثاني الإوز _ (...) والمراد فيه الإوز المعروف بالتركي ، وهُو طير في قدر الإوز البلديّ أبيض اللون . و له تبختر في مشيتة كالحجل وهو من جملة طير الماء مقطوع بحل أكله الثالث اللغلغ _ وهو دون الاوز في المقدار ، لونه كلون الاوز الحبشي إلى السواد ، أبيض الجفن ، أصفر العين . و يعرف في مصر بالعِرَاقي ، ويأتي اليها في مبادئ طلوع زرعها في زمان اتيان الكراكي إليها . ومن شأنها أن يتقدمها واحد منها كالدليل لها ، ثم قد تكون صفا وحدا ممتدًا كالحبل و دليلها في وسطها متقدّمٌ عليها بعض التقدم . وقديصفّ خلفها صفين ممتدين يلقيانه في زاوية حادة حتى يصير كأنه حرف جيم بلا عراقة ، متساوية الطرفين . ومن خاصتها أنها اذا كبرت حدث في بياض بطونها و صدورها نقط صود ، و الفراخ منها لا يعتر به ذلك

"And the second [kind of the birds found in winter] is the goose (...) here is meant the Goose known as the *Turkish* (*Goose*). It is a bird the size of the "Country Goose" [presumably the Domestic Goose] of light colour. It prances while walking like the Partridge. It belongs to the set of water birds whose legal status as permitted food is settled.

^{58.} An-Nuwayrī, *Nihāyat*, section 10, pp. 235-236, author's translation.

The third [kind of the birds seen in winter] is the Laġlaġ: It is a smaller bird than the [Domestic] Goose in size. Its colour, as the colour of the "Ethiopian Goose", is turning towards the dark. It has white eyelids and yellow eyes. This kind is known in Egypt as the River-bank Goose ('Irāqı'). It arrives to Egypt in the beginning of the [time of] growing of crops, at the time when the Cranes arrive. It is a trait to this species that one of the bird precedes the others as a guide to them and then sometimes the others form a row extending as a string. Their guide is in their midst preceding them to a certain extent. Often two rows are formed, extending themselves behind him and meeting him in a pointed angle so that it looks like the letter ğım τ without its [final position] tail, the two rows being equal to one another. A peculiar trait to this species is that as the individuals get older black spots come on the whiteness of their breasts and bellies. Their young ones do not take these spots"⁵⁹.

Forskål describes a goose ($Anas\ anser$) which he writes has the Arabic name $Uaz\ araki$ corresponding to (ei ei ei). The bird that he describes is clearly a White-fronted Goose $Anser\ albifrons^{60}$.

From these descriptions and records it seems very probable that the River-bank Goose الإوزّ العراقيّ is a Goose belonging to the *Anser* genus and more specifically the White-fronted Goose *Anser albifrons* which is the *Anser*-Goose most

⁵⁹ Al-Qalqašandī, Abū l-ʿAbbās Aḥmad, *Kitāb Ṣubḥ al-Aʿšā*, vol. 2 ed. Dār al-Kutub al-ḥidīwīyah. Cairo: 1913-1922, p. 63.

^{60.} Forskål, P. 1775. *Descriptiones Animalium*, post mortem auctoris edidit Carsten Niebuhr, Möller, Copenhagen, p. 3, No. 6.

often seen in Egypt in modern time⁶¹. All Anser and Branta Geese seen in Egypt are winter visitors. The White-fronted Goose is a typical Anser -Goose with a dark-brown plumage, white undertail and vent, a light coloured breast and belly with dark transversal, often band shaped spots. The juveniles lack these spots⁶². The Lesser White-fronted Goose Anser erythropus may have been a regular winter visitor in Medieval Egypt too, as it is a regular winter visitor in Iraq and other places in the Middle East⁶³ and as it seems to have been a more regular visitor in Egypt during the last century⁶⁴. The two species of geese are rather similar in external appearance, with the exception of course that the lesser White-fronted Goose is smaller in size. It looks at first sight "like a small version of the White-fronted Goose" but one of the differences, however, is that the lesser White-fronted Goose has a "yellow eye ring which is visible even at distance"65. This feature together with the white blaze on the front, which is common to both species, may account for the mention of yellow eyes and white eyelids in the description given by Al-Oalqašandī. The word **Ğafn** جَفْن which means eyelid may also mean the scabbard of a sword⁶⁶ and is perhaps used to denote the white blaze at this place. The description of the flying behaviour of geese where these form

-

^{61.} Goodman, *The Birds*, p. 153-154.

^{62.} See Delin, *Photographic guide*, p. 40-41 and Génsbøl, B. 1991. *Nordens Fugle*, sec. ed. Gad. Copenhagen, p. 55, where these features are well illustrated.

^{63.} Hollom, *Birds of the Middle East*, p. 40.

⁶⁴ Goodman, The Birds, p. 154.

^{65.} Delin, *Photographic guide*, p. 40.

^{66.} Kazimirski, Dictionnaire Arabe - Français

two more or less straight rows, which meet at the leeding bird is very precise⁶⁷.

In modern times the term *wizz 'irāqı* is used in Egypt for the Bean Goose *Anser fabalis*, for swans *Cygnus spp*. And for the Ruddy Shelduck *Tadorna ferruginea*⁶⁸. It thus seems that in the colloquial dialects the trend has gone from the specific in the cited Classical examples to denoting generally wild goose-like birds.

In Ancient Egypt the White-fronted Goose is the species of wild goose, which is most often recognised on behalf of its specific white blaze on its front⁶⁹. Geese were domesticated in Ancient Egypt and very appreciated for the table. They are therefore abundantly depicted in Ancient Egyptian art, but it is rare for the pictures to have enough features to be able to recognise the birds at the species level⁷⁰. One notable exception is the pictures of six Geese painted on the Mastaba of Atet from the IV Dynasty (2625 B.C. - 2510 B.C.⁷¹) at Meidum. This painting, popularly known as "The Geese of Meidum", represents two White-fronted Geese, two Greylag Geese *Anser anser* and two Red-breasted Geese *Branta ruficollis*. The

^{67.} Personal observations on wild geese in the field.

^{68.} Goodman, *The Birds*, p. 153-154 and p. 157.

⁶⁹ Houlihan, P. F. 1986, *The Birds of Ancient Egypt*. Aris and Phillips. Warminster: England, pp. 57-59.

^{70.} ibid. p. 56.

^{71.} Andreu, G. 1992. *L'Egypte au temps des pyramides, troisième millenaire avant J.-C.* Hachette, Paris, p. 19.

whole scenery depicts typical natural features for wintering geese⁷². The White-fronted Goose was called *tšsrp* in old Classical Egyptian⁷³.

According to Boessneck the Grey-lag Goose *Anser* anser was domesticated and used for food in Ancient Egypt⁷⁴. *Biological comments*

The White-fronted Goose has in recent time become a rather rare winter visitor in Egypt, and the Lesser White-fronted Goose has become vagrant⁷⁵.

البلوي / al-bulūy (No. 96) (Vocalisation conjectural)/ Pintail /

This name is written بلبو in al-Qazwīnī. In Egypt the most common name for the Pintail is $bulb\bar{u}l$ or $balb\bar{u}l^{76}$. As the name in the two lists may be regarded as faultive copying of بلبول their identification with the Pintail is hereby

suggested.

Anas acuta

In Ancient Egypt Pintails were very often depicted both as hieroglyphs and in art. They were domesticated and used as food⁷⁷. The Pintails were in all probability one of the most common winter visitors among the ducks of the *Anas* genus in

_

^{72.} Houlihan, *The Birds*, p. 57.

^{73.} Boessneck, J. 1988. *Die Tierwelt des Alten Ägypten*. Verlag C.H. Beck, Mµnchen, p. 89.

^{74.} Ibid. p. 88-90.

^{75.} Goodman, *The Birds*, p. 153-154 and p. 154.

^{76.} Malouf, An Arabic zoological, p. 9, Viré, Les Oiseaux du Nord de l'Afrique p. 578, Goodman, The Birds, p. 161.

^{77.} Houlihan, *The Birds* pp. 71-73.

Ancient Egypt⁷⁸.

Biological comments.

Concerning the Middle East and north Africa the Pintail is breeding in Morocco, Tunisia and Turkey⁷⁹. In Egypt it is a rather common passage and winter visitor and is one of the dabbling ducks most often seen on the Nile⁸⁰. A total of 865 Pintails were observed during the Ornithological Studies in Egyptian Wetlands 1989/90 on Lake Manzalah or neighbouring places between 6 March and 26 May⁸¹.

أبو قلمون /Abū qalamūn (No. 100) / **Black Stork / Ciconia nigra** Philological comments

According to $Dozy^{82}$ the name $ab\bar{u}$ $qalam\bar{u}n$, came from the Greek hypokalamon and this name was also used in the classical period to designate a kind of luxury cloth made in Byzantium, but imitated in Egypt where especially the Nile Delta towns of Dimy↠and Tinnıs were proficient in this manufacture. This fabric had vivid colours of glossy nature, and it was said to change colours by different angles to light. Dozy further states that this name means a kind of bird, referring to this list of bird names from Yāqūt and he finds the same bird in the Spanish bird-name calamon. This name

-

^{78.} Boessneck, *Die Tierwelt* p. 98.

^{79.} Hollom, *Birds of the Middle East*, p. 43.

⁸⁰ Goodman, The Birds, p. 161.

^{81.} Meininger, P.L. & Atta G.A.M. (eds). 1994. *Ornithological Studies in Egyptian Wetlands* 1989/90. FORE-report 94-O1, Wivo-report 40, Vlissingen/Zeist, p. 306.

^{82.} Dozy, R. 1927. *Supplement aux dictionnaires arabes*. Deuxième édition. É. J. Brill, Maisonneuve frères. Paris, Leiden.

with Nebrija⁸³. In Spanish, the word becomes calamun calamón means the Purple Gallinule Porphyrio porphyrio⁸⁴. The Purple Gallinule has, however, been suggested as the zoological identification of bird No. 48 in this list.

Al-Qazwını writes in his Cosmography:

أبو براقش: طائر حسن السورة طويل الرقبة والرجلين أحمر المنقار في حجم اللقلق يتلوّن كل ساعة بلون آخر من أحمر و أصفر و أخضر و أزرق (...) و على لون هذا الطائر نسجت ثياب تسمّى أبو قلمون تجلب من الروم و عجّب هذا الطائر في لونه و شكله ولم يحضرني شيء من أفعاله وخواص اجزائه

" Abū Barāqiš : A bird of beautiful appearance with a long neck and legs, with a red bill and of the size of a Stork (Ciconia ciconia). It changes colour all the time [turning between] red, yellow, green and blue. According to the colours of this bird a cloth is woven which is called abū galamūn and which is imported from the Byzantines. This bird is astonishing by its colours and shape, but I have nothing present on its behaviour or on the properties of its [body] parts"85.

The name abū barāqiš is used in classical Arabic for several species of birds with a glossy or variegated plumage⁸⁶. As the name $ab\bar{u}$ galam $\bar{u}n$ has been used to denote glossy or variegated colours on different objects⁸⁷ it is only natural that it should be used on birds with a glossy plumage. This is

^{83.} Dozy, ibid.

^{84.} Vater, P., U. Winding 1988. Spansk -dansk Ordbog. Gyldendal, Copenhagen.

^{85.} al-Qazwīnī, Kitāb 'Ağā'ib al-mahlūqāt, Erster Theil p. 406.

^{86.} Cf. Lane, E. W. 1956. Arabic - English Lexicon. New York, (William and Norgate. London 1879), Frederic Ungar Publishing Co.

^{87.} Cf. Dozy, Supplement.

confirmed by Lisān al-'Arab⁸⁸ which writes:

وقال غيره أبو قامون ثوب يتواءى اذا أشرفت عليه الشمس بألوانٍ شتّى ، قال :و لا أدري لِمَ قِيل له ذلك ؛ قال :لي قائل سكن بمصر أبو قلمون طائر من طبر الماء يتراءى بألوان شتّى فشبّه الثوب به " ... another [person] has told that abū qalamūn is a cloth which, when the sun rises above it [i.e. it is exposed to sunlight] shows itself with variegated colours. He said: I do not know why this (cloth) has been called thus. (He further said): A person living in Egypt has told me that abū qalamūn is a bird among the water birds⁸⁹. (Its plumage) shows itself with variegated colours and this cloth has been likened to it".

One of these water birds with glossy variegated colours is the Black Stork which is: "Easily distinguished from the White Stork by *black upperparts with metallic sheen*. At long range and against the light, the colour of the upper parts and the neck can be surprisingly difficult to judge owing to the effect of the glossiness." The colours which are seen by different exposition of the black parts of the plumage to light are chiefly green, turquoise and purple 91.

The bird described by Al-Qazwını is thus clearly the Black

^{88.} Lisān al-ʿArab, (ed. 1955) compiled by: Ibn Manzūr al-Ifrīqī al-Miṣrī, Abü-l-Faḍl Jamāl ad-Dīn Muḥammad ibn Mukarram. Ed. Dār Ṣādir - Dār Bayrūt, Bayrūt.

^{89.} Water bird is a designation used generically in Arabic for all birds pertaining in some way to water and wetland habitats. However, al-Nuwayrı makes a biological distinction saying that only birds feding on fish and living constantly on water are real water birds, see An-Nuwayrī, *Nihāyat*, section 10, art. Baṭṭ, p. 237.

^{90.} Delin, *Photographic guide*, p. 34.

^{91.} Author's personal observations on specimens belonging to the collections of the Natural History Museum, Aarhus, Denmark; cf. also La Fuente, F.R. de 1972. *Alverdens Fauna*, Edito Bøger, Copenhagen, vol. 4 pp. 274-275.

Stork as it is a bird having the size and the shape of the common White Stork *Ciconia ciconia* with red bill and red legs like the White Stork but with white only on the underparts of the bird⁹². It cannot be the Purple Gallinule as it is a much smaller bird only the size of a domestic hen and even though its beautifully coloured plumage is glossy, it does not present an array of many different colours in its gloss like the Black Stork, furthermore the Purple Gallinule does not have a particularly long neck⁹³. *But like the Purple Gallinule the Black Stork is connected to wetlands*.

Storks of the Genus *Ciconia* are almost absent from Ancient Egyptian art. So far no representation of White Stork has been readily identified. The only presentation of a Black Stork from Ancient Egypt known to Houlihan⁹⁴ is a painting in the Dynasty XI (2040-1991) from the tomb of Baket III. This identification is nevertheless subject to caution (U. G. Sørensen personal information).

Biological comments

The Black Stork is a rather scarce passage visitor and a rare winter visitor in Egypt. A few are summering locally in this country⁹⁵.

^{92.} Cf. Peterson et al. *Europas Fugle*, plate 6. In the Arabic dialects both the white and the black storks have different names, see Malouf, *An Arabic zoological*, p. 237; Goodman, *The Birds*, p. 143-144.

^{93.} Author's personal observations on a specimens of Purple Gallinules and Black Storks belonging to the collections of the Natural History Museum, Aarhus, cf. also Peterson, ibid. plate 31

^{94.} Houlihan, *The Birds*.

^{95.} Goodman, *The Birds*, p. 143-144.

الغطاس / al-ġatṭās (No. 105) / Grebes / Podicipedidae spp.

Philological comments

The name ġaṭṭās غَطَّاس is a common generic name in Egyptian Arabic for Grebes and Divers Gaviidae⁹⁶. Viré writes that this name is used for the same birds in north-west Africa too⁹⁷. The name is derived on the غَطُس pattern from the verb غطس which means to dive, plunge or get submerged. This is very fitting for these birds as they all are fish eaters hunting their prey underwater. Acording to Malouf, the Grebes are called ġawwāṣ in Iraq⁹⁸. This is a synonym of the word ġaṭṭās.

Al-Qazwını wrote:

غواس: طائر يقال له بالفارسية ماهي خوار يوجد ببلاد البصرة على طرف الانهار و كيفية صيده انه يغوص في الماء معكوساً بقوة شديدة و يلبث تحت الماء الى ان يرى شيء من السمك فيأخذه و يصعد به و من العجب لبته تحت الماء لا يغلبه مع خفّة بدنه

Ghawwāṣ: A bird which is called māhu havār in Persian and which is found in the region of Basrah on riverbanks. Its way of hunting consists in diving vigorously head first under water and staying under water until it sights some fish and it then takes it and rises [to the surface] with it. The way the Grebe stays under water with its whole body without having the water overcoming it is a marvellous thing considering the lighntess og its body weight⁹⁹.

Al-Damırı wrote:

Arabic Biology & Medicine

^{96.} Malouf, An Arabic zoological, p. 118; Goodman, The Birds, p. 114.

⁹⁷ Viré, *Les Oiseaux*, p. 591 and 599.

^{98.} Malouf, An Arabic zoological, p. 118

^{99.} Al-Qazwīnī, Kitāb 'Ağā' ib al-mahlūqht, Erster Theil p. 421.

الغواص :طائر تسمّيه أهل مصر الغطاس وهو القِرلّى الآتي في باب القاف ان شاء الله تعالى قال القزويني في الاشكال هو طائر يوجد بأطراف الانهار يغطس في الماء و يصطاد السمك فيتقوت منه

Al-Ġawwās: A bird which the Egyptians call ġaṭṭās. It is the [same bird as] the Pied Kingfisher (Ceryle rudis) which will be described in the chapter of [the animal names beginning with] the letter $q\bar{q}f$. Al-Qazwını wrote in the chapter of the Forms that the Grebe is a bird which is found by riverbanks as it dives in water and hunts fish for food [then follows a direct citation of the text of Qazwını written above] 100 .

Al-Qalqašandı wrote in the Subh al-A'šā:

" And among the [edible] birds [which are not hunted with falcons] is the Grebe (ġaṭṭās). [This species] is also called the Ġawwās. It is a bird of dark colour somewhat like a waterfowl in appearance. It dives under water, takes fish out of it and eats them. In the ḥayāt al-ḥayawān [of al-Damīrī] this bird has been mistaken for the Pied Kingfisher" 101.

All these descriptions are all fine descriptions of Grebes as they are birds having the size of small ducks (length 25 cm - 50 cm for the different species in Western Palearctic). They are all fish-eating birds. They all dive with an energetic thrust of the body plunging head first and they quite often bring their fish preys to the surface handling them in right position before

.

^{100.} Al-Damīrī, Kitāb ḥayāt al-ḥayawān, article: غواص

¹⁰¹ Al-Qalqašandı, *Kitāb Subh* part II p. 69.

swallowing them. All Grebes, except the Little Grebe, have a dark brown back and white underparts. Although Grebes are laying lower in water than most ducks they may at distance look in general appearance like waterfowl, especially the lesser and more round shaped species like the Black-necked Grebe *Podiceps nigricollis*¹⁰².

Biological comments

The Little Grebe *Tachybaptus ruficolli*, the Blacknecked Grebe *Podiceps nigricollis*, the Red-necked Grebe *Podiceps griseigena*, the Great Crested Grebes *Podiceps cristatus* are all breeding in different parts of the Middle East while only the Little Grebe is breeding in North Africa and the Slavonian Grebe *Podiceps auritus* is a winter visitor to the south Caspian region and is a rare to vagrant winter visitor in other parts of the Middle East and North Africa¹⁰³.

In Egypt only the Little Grebe is a breeding resident, while the Great Crested Grebe is a former breeding bird in this country and is a widespread winter visitor in the northern parts of the country. Its last stronghold in Egypt was in all probability Lake Manzalah. The Black-necked Grebe is a widespread winter visitor in the Northern Delta lakes, while the Red-necked Grebe is only seen accidentally 104.

-

Author's personal observations in the field on Great Crested Grebes
 Podiceps cristatus, Black-necked Grebes Podiceps nigricollis and Little
 Grebe Tachybaptus ruficollis, cf. too Peterson et al. Europas Fugle, plate 1.
 Hollom, Birds of the Middle East, p. 14.

¹⁰⁴. Goodman, *The Birds*, p. 114-117.

العقاب /al-ʿuqāb (No. 132)/ Eagles/ Aquila spp., Hieraaetus spp., Haliaeetus spp.

Philological comments

The name ' $uq\bar{a}b$ عقاب is used generically in Arabic for Eagles¹⁰⁵. Many species of Eagles are either breeding or visiting Egypt and the Middle East¹⁰⁶ (Goodman et al. 1989, Hollom et al.1988 pp. 49-66).

الحداء / al-ḥidāʾ (No. 133) / Black Kite / Milvus migrans / Red

Kite / Milvus milvus

Philological comments

The name $hid\bar{a}$ is the common Arabic name for the Kites of the *Milvus* genus¹⁰⁷.

Al-Qalqašandī wrotes

الحِداءَةُ (...) و من ألوانها السُّود والرمد ، وهي لا تصيد بل تخطف ، ومن طبعها أنّها تصفّ في الطيران و ليس ذلك لشيء من الكواسر غير ها

"The Kite: (...) among the colours of this bird are black and ash grey. This bird does not hunt but on the contrary it wrenches away [and steals the prey from other Raptors]. In its nature [lies the trait] that it extends its wings in flight, [this being a thing] which none of the other Raptors are able to

^{105.} Malouf, *An Arabic zoological*, p. 92; Goodman, *The Birds*, p. 190; Viré, *Les Oiseaux*, p. 591 and 599.

^{106.} Goodman, *The Birds*, pp. 173-196; Hollom, *Birds of the Middle East*, pp. 49-66.

Malouf, *An Arabic zoological*, p. 271; Goodman, *The Birds*, pp. 171-173; Wehr, H., 1976, *Arabic -English Dictionary*. J. Milton Cowan, New York.

do..."¹⁰⁸

This description is a fairly good description of some of the biological traits of the Black Kite. The description of the colours is correct¹⁰⁹. Both the Red Kite and the Black Kite are known to be able to steal prey from other Raptors. The Red Kite may even steal from large Raptors as Peregrine Falcon *Falco peregrinus*, Goshawk *Accipiter gentilis* and White-tailed Eagle *Haliaeetus albicilla*¹¹⁰. The mentioning of stretching its wings during flight may be an allusion to the well known ability of the Kites to move their wings independently of each other¹¹¹.

Biological comments

The Red Kite is an irregular and rare visitor on its migrations 112.

Regarding the resident population of Black Kites in recent time they are urbanised in Cairo, where the species now is most usually seen singly along the Nile¹¹³, which is in accordance with the dependence of this species of water¹¹⁴.

It was once very widespread and common in the Nile Valley, but its number has declined to a great extent presumably due to the very considerable use of pesticides and

^{108.} Al-Qalqašandı, *Kitāb Ṣubḥ*, part II p. 82.

¹⁰⁹ Cf. Génsbøl, B. 1987. *Rovfuglene i Europa, Nordafrika og Mellemøsten,* Gad. Copenhagen, p. 65 and pp. 334-335 and author's personal observations on live birds in Cairo 1993.

^{110.} Génsbøl, ibid. p. 67 and p. 74.

¹¹¹. Ibid. p. 332 and 334.

^{112.} Goodman, The Birds, p. 173.

¹¹³. Author's personal observations, cf. too *The Birds*, p. 171.

^{114.} Génsbøl, Rovfuglene, p. 64.

herbicides. The Egyptian population consists of the subspecies *Milvus migrans aegyptius* which are resident birds, but in the period of migrations the number of Black Kites is augmented by the fairly common Eurasian passage visitors¹¹⁵.

الرخمة /al-ra<u>h</u>mah (No. 134)/ **Egyptian Vulture** /*Neophron*

Philological comments

The name $ra\underline{h}am$ is the Arabic name of the Egyptian Vulture¹¹⁶.

Al-Qalqašandī wrote:

الرخمة (...) وهو طائر أبقع ببياض و سواد فوق الحداءة في المقدار تأكل الجيف (...) وهي تسكن رؤوس الجبال العالية و أبعدها من أماكن أعدائه (...) والأنثى لا تمكن من نفسها غير ذكرها وتبيض واحدة و ربما باضت بيضتين

The Egyptian Vulture: (...) It is a pied bird in black and white, which is greater in size than the Kite. This bird eats carrion (...) It lives on the top of high mountains lying furthest away from its enemies (...) The female has no strength herself without her male. She lays one egg, but sometimes two eggs."¹¹⁷

All these biological features are consistent with the Egyptian Vulture. The Egyptian Vulture is a white bird with black primaries and secondaries, although the secondaries are mostly greysh-white on the upper side of the wing, while the primaries are greyish-white on the first half of their length on the upper

^{116.} Wehr, Arabic -English Dictionary, Malouf, An Arabic zoological, p. 259,

_

^{115.} Goodman, The Birds, p. 171.

^{117.} Al-Qalqašandī, *Kitāb Şub*., part II pp. 82-83.

side of the wing¹¹⁸. The description of the size is correct if the Kite mentioned is the Black Kite¹¹⁹. The description of the habitat is correct, and Al-Qalqašandī remark concerning the female is probably an allusion to the monogamy of this species. The mentioned clutch size is correct¹²⁰ (Génsbøl 1987 p. 90).

Biological comments

The Egyptian Vulture is breeding in large areas of the Middle East and North Africa¹²¹. In Egypt it is passage visitor especially in the eastern parts of the country and a rare breeding bird. In the 18th century it appears to have been extremely abundant but its number has decreased dramatically¹²².

^{118.} Delin, *Photographic guide*, pp. 60-61; Génsbøl, *Rovfuglene*, pp. 326-327 and photo p. 90.

^{119.} Cf. Delin, ibid. p. 60 and p. 72.

^{120.} Génsbøl, *Rovfuglene*, p. 90; Peterson et al. *Europas Fugle*, p. 73.

^{121.} Hollom, Birds of the Middle East, p. 50.

^{122.} Goodman, *The Birds*, pp. 178-180.